

Pertanika Journal of Social Science & Humanities

Volume 2 No. 2 September 1994

Contents

Gains and Losses of Alternative Food Grains Programmes in Malaysia	77
Factors Contributing towards the Sustainability of Youth Organizations as Partners in Community Development	87
Motivational Factors that Influence Student Work Attitude	95
Media Technology, Adult Education, and National Development: The Malaysian Experience	101
Achievement Motivation Training for University Students : Effects on Affective and Cognitive Achievement Motivation.	115
Resettlement and Nutritional Implications: the Case of Orang Asli in Regroupment Schemes	123
Correlates of Human Development amongst Adolescents in Malaysian National Religious Secondary Schools	133
Patterns of Counselling-related Problems in a Malaysian Corporate Setting	141

Gains and Losses of Alternative Food Grains Programmes in Malaysia

AHMAD ZUBAIDI BAHARUMSHAH

Department of Economics

Faculty of Economics and Management

Universiti Pertanian Malaysia

43400 UPM Serdang, Selangor Darul Ehsan, Malaysia.

Keywords: welfare cost, substitution effect, tariff, quota and deficiency payments, rice, wheat

ABSTRAK

Kajian ini melanjutkan analisis keseimbangan separa untuk mengira kesan-kesan kebijakan daripada kuota/tarif dengan mengenal pasti hubungan penggantian di antara beras dengan gandum. Didapati bahawa kos kebijakan adalah terkurang anggar sekiranya analisis tidak mengambil kira kesan gantian. Tiga opsyen dasar, iaitu, kuota/tarif import, dagangan bebas dan pembayaran kekurangan diambilkira dalam kajian ini. Keputusan menunjukkan bahawa kuota import/tarif bukanlah kaedah yang paling cekap untuk menampung pengeluaran-pengeluaran tempatan. Kos sosial bersih untuk program beras akan dikurangkan jika opsyen semasa digantikan dengan pelan pembayaran kekurangan. Kos sosial berkaitan dengan harga kuota premium semasa adalah lebih 11 kali ganda lebih besar daripada pelan pembayaran kekurangan.

ABSTRACT

This study extends the partial equilibrium analysis to calculate the welfare effects of quotas/tariffs by recognizing the substitution relationship between rice and wheat. It is shown that ignoring the substitution effect leads to a significant understatement of the welfare cost. Three policy options, that is, import quota/tariff, free trade and deficiency payment are considered in this paper. The results show that import quota/tariff is not the most efficient way to support the domestic producers. The net social cost of the rice programme will be lower if the current option is replaced by deficiency payment plans. The social cost under current quota price premium is more than 11 times higher than deficiency payment plan.

INTRODUCTION

Following independence in 1957, the Malaysian government announced the decision to pursue the goal of complete self-sufficiency in rice production. The goal was to facilitate three major policy objectives: (1) reduce the risk attached to dependency upon world market; (2) save foreign exchange; and (3) raise farm income and productivity. These objectives were to be attained through the adoption of modern agricultural inputs, investments in infrastructure and a price support programme. Imports of rice were restricted and the domestic prices were maintained above world prices.

The guaranteed minimum price (GMP) represents the single most important policy instru-

ment protecting Malaysian rice producers. The policy creates a situation where the effective price received by producers exceeds consumers' willingness to pay as measured by the demand curve. The income redistribution of the farm programme has profound effects on several economic agents in the rice market. Producers and consumers are not the only groups affected by the market intervention. Other agents which are affected by the pricing policy are the National Padi and Rice Board (LPN), which gains from its rice import monopoly whenever the world price falls below its ex-mill and the taxpayers, who have to pay for the cost of administration and subsidy programmes¹.

Although the producers received 1.5 to 2.0 times the border price, Malaysia remains a net

1. The tax collections are used to pay for administration of LPN and other government services. Data on how the tax money is distributed are unavailable for this study. But it is important to emphasize here that the recipients of these services are also gainers.

importer of rice. While 25% of the domestic supply of rice comes from the foreign sector, all the domestic demand for wheat is imported. The high support prices coupled with the favorable world market prices for wheat have allowed wheat to penetrate the domestic market as a substitute. The *per capita* consumption of rice dropped from its 1975 level of 118 kilograms to about 95 kilograms in 1987. However, *per capita* consumption of wheat increased from 25 kilograms to 38 kilograms over the same period (Padi Statistics and Malaysian External Trade). The import demand for wheat increased by more than 50%. The switch from rice to wheat can partially be explained by the fact that real domestic price of rice rose by more than 12% while that for wheat declined by about 16%².

This paper provides estimates of the distribution of costs and benefits associated with three policy alternatives: the current programme which is based on import quota/tariff, no policy (or free trade) option, and deficiency payments. The primary purpose is to improve our understanding of the impact of government intervention in the rice market. The present work attempts to analyse rice programmes by taking into account the substitution relationship between rice and wheat.

THE ANALYTICAL FRAMEWORK

Partial equilibrium analysis has been extensively used for evaluation of trade restrictions mainly because of its simplicity. Some examples of such studies include Hayami (1979) and Chin *et al.* (1988). The general criticism of this model is that distortion existing elsewhere in the economy is ignored (or assumed to be small). Recently, the analysis has been extended to allow the imported good and competing domestic output to be imperfect substitutes in the demand equation (see Broadway and Treddenick 1978; Rousslang and Suomela 1988). In this model, tariff/quota causes the price of domestic substitute to rise, which causes the import demand curve to shift outward.

The imperfect substitution model is now widely used to measure the gains and losses associated with trade restriction. For instance, Rousslang and Suomela (1988) calculated the welfare effect on import tariffs and quotas. They showed that ignoring the response of domestic prices would lead to overstatement of the net welfare costs of tariffs and a significant understatement of the welfare costs of quotas. For a quota policy, discounting domestic price response may lead to a understatement of the quota rent. It is also possible that a quota option may result in a net welfare gain in the imperfect substitutes model.

Lue *et al.* (1987) analyzed the welfare costs of the U.S. sugar programmes by recognizing the substitution relationship between sugar and high fructose corn sweetener. The sugar market is linked to the high fructose corn sweetener by substitution relationships. The model recognized that high support for sugar prices induced a significant substitution for corn sweeteners. The results of the analysis showed that the measurement errors associated with the traditional partial equilibrium can be large. It was also shown that the substitution effect has reduced the quota rents, thus hurting the quota rent owners (i.e., foreign suppliers).

The Lue *et al.* (1987) model can be used to analyze the rice market in Malaysia since rice has a substitution relationship with wheat. Past policies have kept the domestic price of rice above the free market level. The high price of rice relative to wheat, coupled with the favorable international market for wheat, has contributed to the substantial growth of wheat consumption and reduction in rice demand.

To facilitate the analysis, two simplifying assumptions are needed. Firstly, it is assumed that there is no substitution effect between the controlled imported good and all other goods except wheat, the competing good. Secondly, it is assumed that a dollar of tariff revenue has the same value to the economy as a dollar of private income. This implies that the social cost of raising addi-

2. Byerlee (1987) examined the new trends in food imports by developing countries. Several factors were identified both on the demand as well as supply sides which have lead to the increase in wheat consumption in these countries. Examples are rapid technological advances and aggressive credits programmes and subsidization of wheat by major exporting countries.

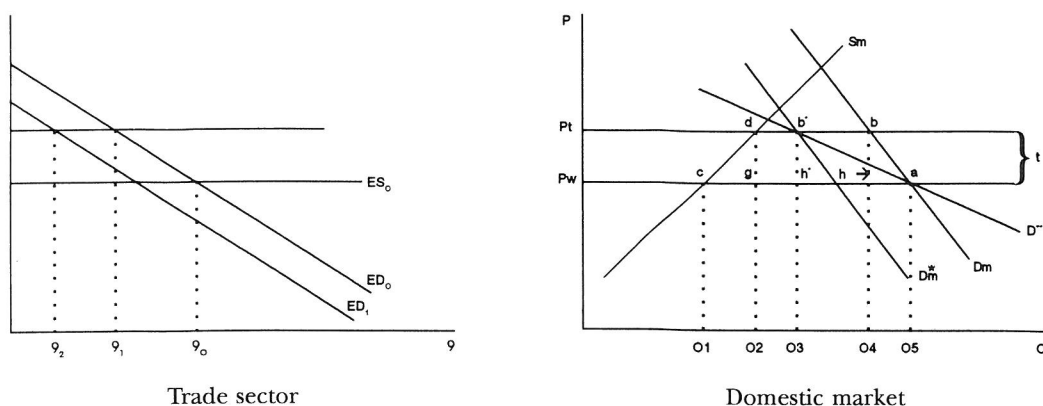


Fig 1: The rice programme with substitution effect in a small country

tional taxes to finance farm programmes is zero. Although these assumptions may be restrictive, they are practical³.

The welfare implications of the rice programme are illustrated in Figure 1. The supply and demand schedules for the domestic market are S_m and D_m , respectively. Assuming zero transportation cost, the excess demand curve is ED_0 and given the small country assumption, the excess supply curve, ES_0 , for the rest of the world is completely elastic. The free trade equilibrium price is P_w and q_0 (or Q_1Q_5) is the imported quantity.

A fixed tariff of t (or an equivalent quota of Q_2Q_4) raises the domestic price to P_t while the world price (P_w) remains unchanged. The tariff lowers the domestic consumption from Q_5 to Q_4 and increases domestic production from Q_1 to Q_2 . If prices of complements and substitutes are fixed, the domestic demand curve (D_m) does not shift. The loss to domestic consumers is given by the trapezoid $PwabPt$ and domestic producers gain by $PwcdPt$. The tariff policy would create a quota rent or tariff revenue of rectangle $ghbd$. The net cost of the tariff policy would be $cabd-ghbd$.

Next, we relax the above assumption by allowing the substitution of wheat to occur. The switch of rice to wheat, because of the declining international wheat prices, causes the rice demand to shift inward (feed-back substitution). In addition, the higher relative rice prices over the years would induce a trend effect which constantly shifts the

rice demand inward (induced trend effect). Both the substitution and the induced trend effects over the years have resulted in demand for rice to shift from D_m to D_m^* and in the trade sector, the excess demand shifts from ED_0 to ED_1 .

The short-run demand curves D_m and D_m^* reflect the marginal value of an additional unit of rice holding other prices fixed. The new equilibrium occurs at price P_t and quantity Q_3 . The relationship D^{**} traces points as price of rice is altered from P_w to P_t , accounting for the equilibrium adjustment in the wheat market. Thus, equilibrium demand (D^{**}) reflects the marginal value of rice when adjustments price of substitute (wheat) are taken into account. The change in consumer surplus associated with the demand (D^{**}), reflects the net welfare effect for both the rice and wheat sectors. Hence with substitution the consumer surplus and quota rent are reduced to $Pwab'Pt$ and $gh'b'd$ respectively (See Just, Hueth, and Schmitz p. 188-192).

In the developed economies (for example, the United States) payments to producers or deficiency payments are commonly used to support the farm sector. Under the deficiency payment the producers are guaranteed a price. The difference between this support price and the market price determines the payment to be made to producers. Under this option, the domestic consumers pay no more than the world price while the taxpayers bear the cost of the programme.

3. Ideally, compensated demand curves should be used in the welfare analysis. However, given the low income elasticities and the grains expenditure is only a small part the consumer budget, the ordinary demand curve would give a reasonable approximation (see Willig 1976). In a related work, Ahmad Zubaidi (1990a) has shown that this assumption introduces only a small error.

Suppose, deficiency payments programmes were used instead of tariffs or quotas and producer price were maintained at P_t , the costs to the tax payers and society are $PwgdP_t$ and cdg respectively. This is because the domestic price for the consumer would be maintained at the free trade level and no substitution would occur. So, no shifts would occur in the case of deficiency payments.

Data

The data on rice statistics were obtained from Padi Statistics published annually by the Department of Agriculture, Malaysia and USDA Rice Market News. The data for wheat are annual average values obtained from Malaysian Annual Statistics. The macroeconomic variables such as the consumer price index, population and exchange rates were taken from Quartely Bulletins and Annual Reports of Bank Negara Malaysia.

To compute the costs and benefits of the rice programmes under alternative policies, the study relies on the results of previous studies. Estimates of the demand elasticities ranged from -0.14 (Ahmad Zubaidi 1990) to -0.50 (Nik Fuad 1985). There are differences in the price elasticities estimates due to differences in behavioral assumptions, time period and model specification in the analysis. A value of -0.31 (Ahmad Zubaidi and Muzafar Shah 1991) was chosen for the analysis, given the estimates are current and that the model has been subjected to several specification tests. The supply elasticity estimates used in the analysis is 0.11 (Ahmad Zubaidi 1991). The low own-price elasticity is also in agreement with those reported by King (1987). Some of these values together with the parameters needed to construct the supply and demand schedules are summarized in Table 1.

DISCUSSION

Current Policy Option

To measure the consumer and producer surplus, let the supply and demand equations be given by

TABLE 1

Model parameters for the welfare analysis

Commodity	Elasticity		Population		Price	
	Supply	Demand	1975	1987	World	Domestic
Rice	0.11	-0.31	12248	16558	547	810

Note: The world price is averaged from the 1980-1985 period. The domestic price is the 1987 consumer price and population are in thousands. Prices are in RM per metric ton and deflated by the CPI (1980=100). The source of the variables is given in the text.

$S(p) = A_s P^\alpha$ and $D(p) = A_d P^\beta$, respectively. The change in producer surplus associated with the price change from P_w to P_t can be approximated by:

$$PS = \int_{P_w}^{P_t} S(p) dp = \frac{A_s}{\alpha+1} (P_t^{\alpha+1} - P_w^{\alpha+1})$$

where PS is the surplus change, $S(p)$ is the supply function, A_s is a constant and α is the supply price elasticity. Similarly, the change in consumer surplus can be approximated by:

$$CS = \int_{P_w}^{P_t} -D(p) dp = -\frac{A_d}{\beta+1} (P_t^{\beta+1} - P_w^{\beta+1}).$$

Assuming linearity, the long run (equilibrium) demand curve D^{**} can easily be estimated once the two points b' and a as in Figure 1, are determined⁴. For example, the estimated long-run demand curve for a quota price premium of \$237 per metric ton is $Q_R = 3730 - 2703P_R$ ⁵. Here Q_R denotes the quantity of rice demanded and P_R is the price of rice. The demand curve for the remaining quota price premiums are given in Table 2. The change in consumer surplus under D^{**} for the price between P_w and P_t can be approximated by:

$$CS = \int_{P_w}^{P_t} -D(.) dp = -a_0(P_t - P_w) - a_1(P_t^2 - P_w^2)/2$$

4. As shown in Figure 1, b' is determined by substituting the support price (p_i) in equation Dm^* . Similarly point a is determined by substituting P_w in equation Dm .

5. The estimated long-run demand curves for price premiums of \$263, \$289 and \$316 are $Q_R = 3730 - 2500P_R$, $Q_R = 3635 - 2326P_R$ and $Q_R = 3552 - 2174P_R$ respectively.

TABLE 2
The welfare effects of current quota policy using the linear equilibrium demand curve

Quota price premium (\$/mt)	Δ CS			Δ PS	import volume		quota rent		deadweight loss		
	substitution				substitution		substitution		substitution		
	without	with	%Δ		without	with	without	with	without	with	%Δ
(RM million)				(1000 mt.)		(RM million)					
237	-528.2	-484.0	9.1	374.4	504	111	119.5	26.3	-34.3	-83.3	58.8
263	-582.8	-534.9	9.0	416.3	477	88	125.5	23.1	-41.0	-95.5	57.1
289	-637.0	-585.7	8.8	458.4	450	65	130.1	18.8	-48.5	-108.5	55.3
316	-692.6	-638.1	8.5	502.2	424	43	134.0	13.6	-56.4	-122.3	53.9
Free Trade ^a					816	367					
					(446)	(201)					

Source: Adapted from Ahmad Zubaidi (1992).

Note: The surpluses were estimated in 1980 dollars using the standard Marshallian concepts. The world price was estimated at \$547 per metric ton (mt). Figures in parenthesis denote negative values.

Import volume measured in metric tons. The world price was estimated at \$547 per metric ton.

^aUnder Free trade, the value of rice imports in million ringgit is given in parenthesis.

where $D(\cdot)$ is the demand curve, $a_1 < 0$ and P_w and P_t are the two price levels⁶. To derive the supply and demand schedules given in Figure 1, we follow closely the approach provided by Lue *et al.* The details on the derivation of the demand and supply schedules are also found in Ahmad Zubaidi (1992).

The difference between the world price converted to Malaysian Ringgit (RM) and the actual domestic price of rice provides an estimate of the quota/tariff price premium due to import quotas, fees and duties of the current rice programme in Malaysia. The distribution of costs and benefits associated with current or alternative depends largely on the assumption made about the price premium, which averaged about \$263 per metric ton of milled rice in the 1980s. The welfare analysis of the rice programme based on this price premium would provide the maximum short run impact of the quota program. Given the volatility of the world rice market, a range of premiums between \$237 to \$316 per metric ton is provided for the analysis⁷.

Table 2 provides the distribution of economic surplus for current policy under alternative price regimes. For a quota price premium of \$237 per metric ton, the consumer cost is estimated at \$528.2 million while the producer's gain is \$374.4 million without substitution. The consumer cost for quota premiums of \$263 to \$316 range from \$582.8 to \$692.6 million, increasing with higher premiums. Similarly the producers' gains and the dead-weight losses associated with higher quota premiums increase when the quota price premium increases. For example, an increase in 10% in the quota premium from \$237 to \$263 would result in a net increase of about 15% in the deadweight loss with substitution effect.

As shown in Table 2 the cost of the consumer is lower if substitution is considered in the welfare analysis. The percentage change (error) for ignoring substitution effect in the consumer surplus ranges from 8.5 to 9.1% depending on the size of the quota premium. The percentage error in approximating the dead-weight loss ignoring

6. The linear demand curve is given by $D(p) = a_0 + a_1 P$.

7. The quota premiums of \$237, \$263, \$289 and \$316 are equivalent to support prices of \$784, \$810, \$836 and \$863 per metric ton, respectively. This price range is selected arbitrarily but it would provide information on the program costs under alternative price regimes.

substitution effect is even larger, by about 55% in all cases⁸.

If the domestic price is maintained at \$810 per metric ton (or \$263 quota price premium), the rent created from the programme would amount to \$125.5 million without substitution and the value would decrease to \$23.1 million with substitution. Thus the partial equilibrium analysis of rice policy ignoring the substitution overestimates quota rent by more than 400%. Alternatively, the result suggests that in the longer run the rent due to quota would decline because of the penetration of wheat in the domestic market⁹. The analysis shows that the partial equilibrium model framework, without the substitution effect, tends to overestimate the true cost to the consumer and quota rent. In this study it was found that ignoring the substitution effect would lead to about 133% underestimation of dead-weight loss of the current quota program of \$263 quota price premium. These are sizable errors and should be considered in the final calculation of policy impacts

Alternative Policy Options

The above results suggest that the current programme does not promote consumer welfare. The current programme incurred significant deadweight loss from inefficient allocation of resources in the rice industry as a result of the market intervention. The artificially high consumer price may have promoted smuggling activities¹⁰. As noted by Tan (1987) about 30% of the total rice consumed entered the country illegally. Thus, rice smugglers benefited from the current programme and yet they are the non-target group. Policy-makers require information under current and alternative policy options in order to understand the consequences of their policy actions. In the following section, three alternative policies,

free trade, an equivalent tariff and deficiency payments, are discussed.

Free Trade

The first scenario illustrates a policy change which removes the quota and all supports yielding a free trade or "no policy" option. The scenario would allow world prices to prevail in the domestic economy at the official exchange rate. The major impact of the change in price is, of course, on production and consumption.

Substituting the world (c.i.f import) price into both the supply and demand equations provides estimates of the level of consumption that would prevail in the absence of trade barriers. The value of domestic production and consumption at a world price of \$547/metric ton are 1547 and 1923 thousand metric tons respectively. Thus, in the absence of policy intervention, imports increased from 238 thousand metric tons in 1985 to 376 thousand metric tons. This represents an imports increase of about 58% from the current level. The excess demand for rice would result in a loss of RM201 million of foreign exchange (Table 2).

Clearly the above policy triggers cutbacks in production and increase in domestic consumption with lower prices. Given the lower producer price, producer surplus declines by \$416.3 million while consumer surplus increases by \$534.9 million. The government revenue declines by \$23.1 million due to loss in quota rent. The result is an increase in net welfare of about \$95.5 million. The flow of foreign exchange out of the economy would increase by about 329%¹¹.

The results clearly suggest that consumers would have been better off under free trade. A free trade policy would increase importation and consumption of rice. Thus, it is obvious why consumers, importers and rice millers prefer a free

8. It is important to note here that the equilibrium demand curve (D**) is derived by extrapolation of two points, that is, b' and a (see p. 7 in the text). The welfare calculation based on this linear demand curve assumes linear path of adjustment. The bias obtained from our analysis depends implicitly on this assumption.

9. Note that a support price of \$919 per metric ton or higher would change the net trade position from a net importer to a net exporter.

10. The other reason for smuggling activities could be that the foreign supply of rice is of better quality.

11. The scenario ignores the impact of the wheat market and reflects a short-run impact. Given the lower rice price, it is expected that the consumption of wheat to fall. Thus, the figures provided here may overstate the outflow of foreign exchange.

trade option which would keep domestic prices low and eliminate government intervention. As for the taxpayers, this option generates no rent or government expenditure. The reduction in price hurts the rice producers. We expect resources to be transferred out of rice production into other sectors resulting in heated lobbying.

Tariff Programme

Suppose an equivalent tariff had been used instead of a quota to support the domestic rice producers. Both the consumer losses and producer gains would be the same as with an equivalent quota programme. The difference, however, is that under the tariff programme the government would benefit in the form of tariff revenues. The revenues generated by the four price regimes are the same as those summarized Table 2. For example, the government gains \$23.1 million when a tariff of \$236 per metric ton is imposed on the imported rice.

Deficiency Payment Options

Under deficiency payments, producers are guaranteed a "target" price, P_t , for their product and the consumer price is the world price. Payments equal to the difference between the target price and the world price are made to the producers. This programme increases the producer surplus while the consumer surplus remains unchanged from that of free trade. It adds costs, however, to taxpayers who provide the payments for the programme. The economic welfare consequences of deficiency payments for the same set of support prices as in the previous quota programme are summarized in Table 3. For quota premiums of \$237 to \$316 per metric ton, the dead-weight loss ranges from \$7.0 to \$11.8 million. Thus, the results of the analysis favor deficiency payments based on the least cost criteria¹².

Quota versus Deficiency Payments

If the current quota programme is replaced with a deficiency payment programme and domestic

TABLE 3
The welfare effects of deficiency payments

Quota price premium (\$/mt)	ΔCS	ΔPS	Govt. Expenditure (RM million)	Deadweight Loss
237	0	374.4	381.4	(7.0)
263	0	416.3	424.8	(8.5)
289	0	458.4	468.4	(10.0)
316	0	502.2	514.0	(11.8)

Source: Estimated from the analysis described in the text
Note: The surpluses were estimated in 1980 dollars. The world price were estimated at \$547 per metric ton. The change in consumer surpluses (CS), producer surpluses (PS), and deadweight loss were computed from the free trade baseline. No change in consumer surplus since under deficiency payment option there is no distortion on the consumption side.

producer's price were maintained at the quota premium levels given in Table 2, the welfare consequences are shown in Table 4. Consumers would gain from consuming more rice at a lower price. The consumers with their dual role as consumers/taxpayers gain by \$484.0 million, while as taxpayers they suffer a loss of about \$381.4 million from the reduction in the consumer price at a \$237 quota premium. Given their net gain of \$484.0 million, we can expect the consumers to support a deficiency payment programme instead of the present tariff/quota policy where as a group they are effectively taxed \$484.0 million.

It is important to emphasize here that the poor consumers would benefit to a greater extent from this option since they are non-taxpayers. Given the high incidence of poverty among the rice producers and that 20% of the domestic paddy produced is retained for home consumption, the deficiency payments plan certainly is a better alternative than the current policy option, if the government objective is to subsidize the poor¹³.

The lower retail price would at least discourage smuggling activities. The decrease in the price of rice would result in a reduction in the price of

12. The most efficient policy is the one with the smallest deadweight loss. It is important to note that the maintained assumption here is that the opportunity cost of a dollar of government spending is one dollar.

13. The figures on home consumption is based on government estimates reported by Tan (1987). The quota policy imposed a tax of about 5% on the household in the poverty group (see Goldman 1975).

TABLE 4
The welfare effects of moving from current policy option to deficiency payments

Quota price premium (s/mt)	ΔCS	ΔPS	Govt. expenditure	Net social gain
(RM million)				
237	484.0	0	381.4	102.6
263	534.9	0	424.8	110.1
289	585.7	0	468.4	117.3
316	638.1	0	514.0	124.1

Source: Estimated from the analysis described in the text.

Note: The surplus were estimated in 1980 dollars and with substitution. The world price were estimated at \$547 per metric ton. The change in consumer (CS), producer surpluses (PS), and net social gain were computed by replacing the quota/tariff with deficiency payments programme and producers prices maintained at the quota level. There is no change in the producer surplus since producer prices are maintained at quota/tariff levels.

rice bran used for animal feed. The lower feed cost would provide more incentive for livestock producers and would enhance the objective of achieving food self sufficiency in Malaysia¹⁴. The taxpayers in this case would have to bear the costs of the programme. The treasury cost is given in Table 4. For example, to maintain the current price support price of \$810 per metric ton to the producers and given that the world price is \$547, the treasury cost is \$424.8 million. An increase of about 6.5% of the current support price will increase the cost to \$514.0 million, which is more than 20% above current expenditure level.

Table 5 shows the net social cost under alternative policy options. The cost of the rice programme under the deficiency payment ranged from \$7 to \$11.8 million depending on the level of the price premium. Thus the deficiency payment option achieves larger gains than a tariff/quota, but involves larger budget costs. The dead-weight loss is lower because it removes the con-

sumption distortion. Given the current deficit problem in Malaysia, it is unlikely that the government would support this policy option.

The results (Table 5) suggest that the current policy is not the most efficient option. The social cost of a price premium of \$263 under the current policy is 11.2 times higher than that of the deficiency payments plan. The fact that the existing policy regime exists despite the high cost of the programme reflects the strength of the rice producers and LPN in the policy making process. The consumers, and especially the poor consumers who surely outnumber paddy farmers, are unorganized.

The current policy is more effective in saving foreign exchange than the deficiency payments plan. From the data (Table 5) it is obvious the deficiency payment plan results in more foreign exchange loss. For instance, a quota premium of \$263 results in M\$48 million foreign exchange flowing out of the economy but this figure is 8.5 times higher in the case of deficiency payment. Note that in this analysis, we ignore the increase in wheat imports caused by substitution¹⁵.

CONCLUSION

This study provides insights into the impact of government pricing policies on major interest groups in the rice market. Importantly, we showed that evaluation of the market intervention must account for the wheat as well as other closely related markets. Although several simplifying assumptions are made to facilitate the analysis, it is evident from the results of this study that treating the rice market independently of all other goods, particularly the wheat market, leads to a significant underestimation of the net economic cost of the programmes.

The main policy instrument of the rice programme in Malaysia has been an import quota. The intervention is expensive and the results of the welfare analysis suggest that the net social cost would be lower if the current programme was re-

14. Under deficiency payments, payments to the producer may be based on previous years' production. The option could also minimize the smuggling activities.

15. Saving foreign exchange is an important policy goal for many developing countries and is the stated policy goal for Malaysia. However, given the inefficiencies on the enacted policies, it is possible that such a policy will result in much lower foreign exchange inflows.

TABLE 5

Net social cost and foreign exchange losses of the Malaysian rice policy

Policy option	Quota/Tariff Price Premium (\$/mt.)			
	237	263	289	316
	(RM million)			
Current Policy				
Net Social cost	83.3	95.5	108.5	122.3
Foreign Exchange Savings	61	48	36	23
Deficiency Payments				
Net Social Cost	7.0 ^a	8.5	10.0	11.8
Foreign Exchange Savings	412 ^a	409	406	403

Source: Estimated from the analysis described in the text.

Note: ^aSubstitution would not occur with a deficiency payment.

placed by a deficiency payment. Under a deficiency payment programme, the consumers would pay a lower price, the world price, and consume more. Deficiency payments will also remove distortions in the rice and related markets (including the input markets). Thus, deficiency payments plan represent a potential policy option for supporting the rice producers. This conclusion, however, depends heavily on the assumption that one dollar of tax revenue is worth the same value as one dollar of private income.

A quota/tariff policy on rice alone will keep the domestic price of rice high, relative to that of wheat. A relatively high rice price will result in a substantial growth in wheat consumption and a reduction in rice demand. The increase in the demand of wheat can only be met via the import market. This may be inconsistent with the government's objective of being self sufficient in staple foods and saving foreign exchange. A tariff/quota on rice coupled with a tariff on wheat may improve the gains from the rice policies.

In terms of market participants, it is clear that consumers prefer deficiency payments rather than relying on the present quota system. However, given the government's desire to keep its expenditure down, it is unlikely that the government and the taxpayer would prefer to shift to a deficiency scheme. A quota programme protects producers, taxes consumers, and raises quota revenue.

REFERENCES

- AHMAD ZUBAIDI. 1990a. The Malaysian Rice Policy: *Welfare Analysis of Current and Alternative Programs*. Ph.D. Thesis. University of Illinois at Urbana-Champaign.
- AHMAD ZUBAIDI. 1990b. Incorporating government intervention in the rice market: The case of rice policy in Malaysia. *Pertanika*. 13:289-296.
- AHMAD ZUBAIDI. 1992. Price distortions in agriculture and their effects: the case of Malaysian rice policy. Paper presented at *The 1992 Economics in Business and Government Conference*, Gold Coast, Australia 1-4 September.
- AHMAD ZUBAIDI and MUZAFAR SHAH HABIBULLAH. 1991. On the demand for rice and wheat in a developing economy: test of functional forms and the estimates of income elasticities. *Asean Economies* 79:40-54.
- BALDWIN, R.E., J.H. MUTTI and J.D. RICHARDSON. 1980. Welfare effects on the United States of a significant multilateral tariff reduction. *J. of International Econs.* 10:405- 423.
- BROADWAY, R. and J. TREDDENICK. 1978. A general equilibrium computation of the effects of the Canadian tariff structure. *Can. J. of Econs.* 11:424-446.
- BYERLEE, D. 1987. The Political economy of Third World food imports: The case of wheat. *Economic Development and Cultural Changes*. 35:305-326.
- CHEN, NEU-JIN, GLENN C. W. AMES and A. LAWTON HAMMETT. 1988. Implication of a tariff on imported Canadian softwood lumber. *Can. J. of Agric. Econs.* 36:69-81.
- GOLDMAN, R.H. 1975. Staple food self-sufficiency and the distributive impact of Malaysian rice policy, *Food Research Institute Studies*. 14:251-293.
- HAYAMI, Y. 1979. Trade benefits to all: A design of the beef import liberalization in Japan. *Amer. J. of Agric. Econs.* 61:342-47.
- JUST, R.E., D.L. HUETH and A.SCHMITZ. 1982. *Applied Welfare Economics and Public Policy*. Englewood Cliffs, New Jersey: Prentice-Hall inc.
- LUE, GWO-JIUN M., A. SCHMITZ and R.D. KNUTSON. 1987. Gains and losses of sugar program policy options. *Amer. J. of Agric. Econs.* 69:591-602.
- MALAYSIA, DEPARTMENT OF AGRICULTURE. Padi Statistics (various issues).
- MALAYSIA, DEPARTMENT OF STATISTICS. Malaysia External Trade (various issues).

- ROUSSLANG D.J. and J.W. SUOMELA. 1988. Calculating the welfare costs of import restrictions in the imperfect substitutes model, *Applied Econs.* **20**:691-700.
- ROUSSLANG D.J. 1987. The opportunity cost of import tariffs. *Kykloks.* **40**:88-102.
- TAN, S. H. 1987. *Malaysian Rice Policy: A Critical Analysis*. Kuala Lumpur: Institute of Strategic and International Studies, Malaysia.
- WILLIG, R.D. 1976. Consumer's surplus without apology. *Amer. Econ. Rev.* **66**(4): 589-97.

(Received 8 June 1993)

Factors Contributing towards the Sustainability of Youth Organizations as Partners in Community Development

AZIMI HAMZAH and TURIMAN SUANDI
Youth Development Studies Unit
Centre for Extension and Continuing Education
Universiti Pertanian Malaysia
43400 UPM Serdang, Selangor Darul Ehsan, Malaysia

Keywords: Youth organizations, partners in development, community development, sustainability

ABSTRAK

Tujuan kajian kualitatif ini adalah untuk mengenal pasti faktor-faktor yang menyumbang kepada kemampuan persatuan belia untuk bertahan sebagai rakan pembangunan masyarakat. Tiga kaedah telah digunakan untuk mendapatkan maklumat iaitu wawancara, pemerhatian dan penganalisaan dokumen. Kajian telah dijalankan di Kampung Endah di daerah Kuala Langat Selangor. Persatuan ini telah dipilih kerana prestasi cemerlang yang telah ditunjukkan oleh ahli-ahlinya yang begitu aktif. Kajian menunjukkan bahawa ada 14 faktor yang menentukan kemampuan sesebuah persatuan belia untuk memberikan sumbangan kepada pembangunan masyarakat secara berterusan. Faktor-faktor tersebut merangkumi pentadbiran, kepimpinan, wawasan, perancangan, pembahagian tugas, pengalaman, peruntukan kewangan, ekonomi, sokongan masyarakat, kerohanian, pengawasan, hubungan dengan agensi, sumbangan masyarakat dan semangat kesukarelawanan.

ABSTRACT

The aim of this qualitative study is to identify factors that contribute towards the sustainability of youth organization as partner in community development. Three major tools were used to secure information: interview, observation and document analysis. The study was conducted at Kampung Endah in the District of Kuala Langat, Selangor. The study revealed 14 factors that contribute to the sustainability of a youth organization as partner in community development. They were administration, leadership, vision, planning, division of task, experience, funding, economic development, people's support, spiritual development, monitoring, linkage with agencies, contribution from community and volunteerism.

INTRODUCTION

Youth forms the major portion of Malaysia's population. The number is expected to reach 9.3 million by the year 2000 (the Sixth Malaysia Plan). Realising the importance of youth as partner in nation building, the government is making all efforts to unleash this invaluable potential.

The Malaysian approach to youth development calls for all development agencies to work together. These agencies are given the roles of providing a conducive educational climate and environment for the young people to learn and participate; and to be creative and innovative through constant interaction and guidance. To date, more than 30 government and non-government agencies have been involved in moulding the young population to become useful citizens today and in the future (Shamsuddin 1990). The succeeding paragraphs in this section describe spe-

cifically the major strategies adopted and implemented by the government through these development agencies.

Youth Development Programmes

Numerous programmes have been organized to prepare youths to be partners in nation building. These programmes can be categorised under four major groups – viz, Economic, Social, Educational and Spiritual. The economic programmes encompass such projects as the Agricultural Youth Project, Youth in Business, Youth Cooperatives, the Youth Land Scheme, the Entrepreneurship Programme, and Vocational Training. After participating in these economic programmes, it is hoped that the youth will be better prepared to face the future as self-reliant individuals.

The social programmes include such activities as work camps, awareness campaigns, community

work, self-help programmes and cooperation for development programmes. These programmes are formulated in such a manner as to instill the spirit of volunteerism and community mindedness among the young people. The educational programmes for the youth focus on improving performance in academic studies coupled with preparing them for working life. Activities normally conducted under these programmes are: tuition classes, career guidance, resource centers projects, campaigns and motivational talks.

The general aim of incorporating the spiritual programme as an integral element in youth development is to create awareness and strong understanding among the young people of the various aspects of religion to enable them to arrive at the code of ethics of how to communicate with the Creator, how to socialise with fellow humans and how to treat and preserve the environment. It is envisaged that these programmes will lead youth to truly practise religion. Examples of activities under this programme include cadre development, religious work camps, small group discussions, outreach programmes to the community, going-back-to-basic programmes, and visits.

Youth Policy

The concern to have a well-rounded generation to spearhead the country's progress toward excellence has motivated the government to formulate a philosophy for youth development. The National Youth Policy (NYP) was adopted by the cabinet in 1985 as the philosophy which would provide the guidelines for youth development. In addition a Master Programme for Youth Development was launched in May 1991 to implement the NYP.

The NYP elaborated the need for all youth programmes to incorporate six major principles. The six principles are:

1. Putting into practice the National Tenets
2. Basing activities on the spirit of volunteerism, autonomy and integration
3. Developing matured leadership qualities
4. Encouraging involvement in decision making
5. Developing high morale and striving for excellence
6. Providing wide and indepth knowledge [National Youth Policy, Ministry of Youth and Sports, 1991]

The activities under this programme call for mass-participation. This is obvious even from the title of the programmes delineated. The activities are grouped under ten major themes:

1. Active Malaysia - A programme which emphasizes sports activities and physical recreation to build a healthy and active society through regular exercise and active participation. It also aims at increasing stamina and endurance to achieve higher productivity and better quality of life.
2. Excellent Malaysia - A programme to attain top performance in sports development; to produce champions in all fields for the nation - outstanding sportsmen to whom excellence is a cherished value and who will acquire a, positive, independent, indomitable spirit and high aspirations.
3. Patriotic Malaysia - A programme to foster a spirit of awareness, loyalty, sacrifice and love for the country; to build a brave national character with a strong fighting spirit and the ability to resist negative influences; and to nurture positive values.
4. Harmonious Malaysia - A programme geared towards attaining a happy life; to achieve national solidarity by building a society imbued with mutual understanding and respect, a sense of responsibility and patriotism.
5. Skilled Malaysia - A programme to produce a young generation skilled in various fields in line with national development objectives of meeting manpower needs in the economic, industrial, agriculture and service sectors. The programme is also aimed at building a progressive young generation.
6. Ethical Malaysia - A programme towards building a harmoniously balanced young generation - intellectually, spiritually and physically - in line with the national education philosophy which emphasizes noble qualities, honesty, trustworthiness, administrable traits, good character and kindness, sincerity, humane attitude, positive thinking, and love of nation, country and creed.
7. Progressive Malaysia - A programme to build an innovative, creative society with an open attitude to all forms of modernisation and development, physical or mental, in line with the objective of making Malaysia a developed nation.

8. Universal Malaysia - A programme to nurture a sense of pride in the nation and love of country and creed, and to enhance Malaysia's image in the international community through cooperative relations with other nations for mutual progress and well-being.
 9. Caring Malaysia - A programme to build a generation of Malaysians who are conscious of the need to help the less fortunate and victims of disasters, and who are humane, responsible, caring and imbued with the spirit of togetherness.
 10. Cultured Malaysia - A programme towards a Malaysian society that will practise national unity and enhance the quality of life, while preserving positive cultural values in line with the philosophy of the National Culture Policy. (Program Induk Belia Negara, 1991).
1. To uphold and strengthen the voluntary principles in youth movement
 2. To make recommendations to the government, statutory bodies or to other appropriate bodies on matters affecting youth
 3. To establish and maintain relations with other national and international youth councils and organizations
 4. To promote international respect, inter-communal understanding, cooperation and harmony through youth work
 5. To promote and encourage interest in the moral, educational and physical welfare of Malaysian youth among interested bodies
 6. To work in close cooperation with agencies responsible for youth affairs in the interest of youth movements.
 7. To work toward establishing and strengthening a Malaysian Youth Policy with related government agencies.
(Pertubuhan-pertubuhan Belia di Malaysia 1985)

The development of youth, both physically and spiritually and in accordance with an acceptable philosophy, is critical in preparing the young citizens to realise the vision of the present leaders. The above policy and master plan can contribute towards fulfilling these hopes.

Youth Movement

The development of a secured youth movement is accepted as pertinent in the country's effort to mould the youth as nation builders. Each of the youth organizations in Malaysia has its branches/chapters at every administrative level of the country. The basic hierarchical structure is pyramidal in nature with a wide base at the village level and tapers upwards at the district, state and finally the national level. The numerous youth organizations in the country are commonly grouped under four major categories :

Uniform Associations; Religious Associations; Ordinary Associations; and Student Organizations.

Practically, all the youth organizations in Malaysia are affiliated with the Malaysian Youth Council (MYC). The MYC was established in 1948 to perform the role of a co-ordinating body for all the youth organizations. The government has recognised MYC as the National Committee of youth; thus there is an on-going consultation and provision of assistance on matters concerning the young. The main objectives of MYC are:

The sincere concern of the government to accommodate the contribution of youth movements toward nation building prompted the formation of a youth parliament called National Youth Consultative Council. As stated in its constitution, the council is given the mandate to carry out the following functions:

1. To deliberate on the problems of youth and act as adviser to the Minister on the formulation and review of youth programmes,
2. To act as a consultative and advisory body for all national youth organizations in Malaysia,
3. To co-ordinate programmes and activities of youth organizations in Malaysia,
4. To channel youth enthusiasm and energy for national development,
5. To work towards instilling loyalty to the nation and creating a sense of national identity among the youth. (Pertubuhan-pertubuhan Belia di Malaysia 1985)

The following paragraphs provide a detailed picture of a youth organization that has benefitted from the efforts of various bodies in promoting youth development. The observation was made with the objective of revealing the "what, how, and who" are associated with the success story of a

youth organization as a partner in community development.

Kg. Endah Youth Organization

The Youth Organization of Kg. Endah is located in a traditional village, approximately 20 km from Banting town (78 km from the city of Kuala Lumpur) in the district of Kuala Langat, Selangor Darul Ehsan. The village has a total population of 1982 people where 918 are females and 864 males. Almost all the residents are descendants of Javanese and farming is their main occupation.

Kg. Endah Youth Organization was formed 29 years ago on the 17th of November 1964. Initially, the establishment of the association was a combined effort with a neighbouring village. In 1970 they split and Kg. Endah Youth formed a new organization.

Subsequently, in 1972, Kg. Endah Youth Organization was revived and became a chapter of one of the National Youth Movements (4B). It started with only 120 members. Following several membership campaigns in 1972 and 1973, the number of members increased to 250 Youth.

In 1976, there was a shift in the top leadership of the association. However, in 1977 the former leaders came back to lead the organization until 1987. Since then, the organization has been able to maintain a commendable performance. Currently it has 388 members with 274 males and 114 females.

The organization, spearheaded by dedicated leaders, has received several national awards for excellence. After 1987 the state and national panel of judges for the Top Association Award requested Kg. Endah Youth organisation to refrain from further participation in the award competition.

METHODOLOGY

Data Collection

Three major tools were employed to gather the data needed for the case study. The tools were a semi-structured interview, observation and document analyses.

The semi-structured interview revealed rich data (through the use of systematic probing procedures). The interview focused on gathering information on the involvement of youth in sus-

taining the viability of the youth organization. The respondents interviewed were ten selected youth leaders, five ordinary members of the organisation, ten village leaders and five local residents, five officers from the Department of Youth and Sports, and five officials from related development agencies. The duration for each interview was between one to two hours. All interviews were tape-recorded and the information was later transcribed and qualitatively analyzed with the use of the Textual Data Categorization (TDC).

The field observation was useful in gathering facts about the activities of the youth organization – with special focus on the Group Farming Project. It enriched the information obtained through both the interview and document analysis methods. For the third tool, selected documents in the possession of the youth organization, the Village Development committee and the Department of Youth and Sport were compiled and analysed. The document analyses were found to be critical in arriving at the details about the organization and its activities.

The whole data gathering process took 60 days to accomplish. It was completed during the first week of June 1993. An enumerator was trained to do the interview and field observation during which he stayed in the village for two weeks.

Data Analysis

The first step in the data analysis was to immediately transcribe the notes taken during the interview. The second step was to identify the keywords related to the major questions asked during the interview. These keywords were then organized into three main categories: successful activities, impact and organizational strength. Under each category, further sub-categories were developed.

FINDINGS

Factors Contributing Towards the Success of Kg. Endah Youth Organization's Activities and as Partner in Community Development.

The Kg. Endah Youth Organization was successful in carrying out its activities to bring about desired changes to its members and the community at large. The main factors associated with this achievement were as follows:

Reliable administration coupled with availability of supportive infrastructure

The organization has a reliable administrative structure. Being different from many other village organizations, it has its own 'operational' club house to serve as a centre for administration and documentation. The set-up of the club house facilitates the work of recording and presenting the village data for the perusal of its members and the community.

Proactive Leadership Orientation

The leaders of the organization have spearheaded the organization as a non-formal training institution that exposes members and villagers to unleash their leadership potential. Through this activity, the organization and the village community have strong support from leaders and members—thus ensuring continuity in realising their set goals.

Clear Direction and Vision

The organization and all its bureaus are clear about their goals and mission. The mission is based on the philosophy that encourages autonomy and self-esteem. Each bureau considers both the development of members and community at large towards attaining sustainable development and complying with the vision of leaders at the national level as the goals and mission.

Planning to Serve and Improve

All the activities to be implemented are developed to serve the needs of the members and the community. The planning process takes into consideration the involvement of the clients to be developed. In this manner the activities of the organization always receive full support from the youth as well as the adults.

Division of Tasks and Focus

To enhance the activities of the organization, eight bureaus are established. All the bureaus are dedicated to accomplishing the objective of the activities agreed upon. This outfit facilitates the management system and helps to reduce unnecessary burden on certain individuals or sub-committees.

Experiences that are Kept Alive

The members have been exposed to many courses and training schemes within the country and overseas. The experiences have been shared with the rest of the members and readily modified and applied wherever possible. Subsequently, since many of the youth leaders are members of the major village level committees, the invaluable experiences are tapped by the village leaders.

Stable Financial Support

This organization has a stable financial situation. It has its own economic projects thus continuously contributing towards stabilising the funds needed for development and implementation of activities. In addition, the prominent villagers also provide funding to support the organization's activities.

Concern on Economic Development

Most of the projects/activities are carried out commercially. These projects include group vegetable farming, animal husbandry, business and cottage industry. The organization also helps members to ascertain sites, licence, capital and attend relevant training courses. To date, no members are unemployed. They have on an average monthly income of RM500.00

Activities that Attract People Support

The members and villagers have full faith in the sincerity of the organization's intentions. Thus, they participate actively in the activities of the organization. This is obvious when the organization embarks on activities that benefit the members and villagers. The organization has gained the respect of both groups.

Based on Spiritual Development

The organization has capitalised on spiritual development to reduce the problems of the generation gap by creating an atmosphere of respect and tolerance. All the religious activities call for joint planning and participation of both young and old. The interfacing on religion matters facilitates the implementation of the socio-economic activities.

Continuous Monitoring of Activities

The progress of the activities is constantly monitored by the committee members of the organisation. Through this system any flaw that arises from the activities can be readily remedied.

Linkage with Development Agencies

The leaders of the organization have been effective in playing the role of resource linkers. They have linked the members/activities to the related development agencies for guidance and support. The organization, in general, welcomes any form of help from government or non-government agencies.

Contribution Beyond Organization

The respect the villagers have earned opens the door for the organization to contribute directly to the development of the community. They are invited to become decision makers in most of the major grass-root institutions existing in the village. When the leadership of the youth organization is accepted by the people, its activities will have the benefit of both moral and material support from the normal village development efforts and funding.

Volunteerism in Practice

The spirit of volunteerism is accepted and put into practice throughout the organization. Without doubt, this is the foundation for the eight bureaux to be more active in pursuing their projects.

CONCLUSIONS

The formation of a youth organization in Kg. Endah, in one way or another, has contributed towards the village living up to its name (Endah means 'beautiful' in all aspects). The mention of Kg. Endah will ring a bell to Malaysians as the most developed village, the most well-decorated village, the village with no or negligible unemployment and drug problems, the village with an organised youth, the village with political harmony—in other words, a model village. Presently it is a common sight for villagers to see both national and international visitors taking photographs or making some specific observation. This phenomenon is the result of having young citizens (the bulk of the residents) who are re-

sponsible, organised and having the spirit of volunteerism and community mindedness.

Specifically, the impact of the Kg. Endah Youth Organization on the well-being of its members and the community at large is as follows:

1. *Impact on the Youth*

- a. The organization is instrumental in uniting all the young people in the village.
- b. Through the dynamic activities of the organization, the youth is realising its self-worth and becoming more conscious of its identity.
- c. The organization provides the avenues for the young villagers to share their talents. Through this process they are able to contribute and enhance the development of the village and its residents.
- d. As a result of being organized, the problems of unemployment and drugs are dealt with in a concerted manner. At the moment, such problems are almost non-existent.
- e. The spirit of volunteerism among the young is returning. The organization should be given the credit for the revival because they have endorsed service as the main stay of their activities.
- f. The youth leaders, through the various activities, have instilled the realisation among the young people that many benefits can be derived from being members of the youth organisation. This is not so in other places and where young people are deterred from becoming members. The youth of Kg. Endah accept that a strong organization is an asset to the village.

2. *Impact on the Village Community*

- a. There is an atmosphere of mutual respect between the old and the young of the village. The youth organization has bridged the gap between them.
- b. The village traditions and heritage are revived through the activities of the organization.
- c. The strict tradition that the young must listen to the old has been broken. The success of the organization has opened the door for elders in the village to seek the

opinions of the youth leaders in practically all matters.

- d. The organization has played a major role in making Kg. Endah a model village. As a result there is a stronger sense of belonging and village mindedness among the residents.

The impact is also felt by the Malaysians in general. Kg. Endah is recognised as a social laboratory for youth bodies or any village development committee seeking ideas for improvement. In summary, below is listed the strength of the Kg. Endah Youth Organization with special focus on aspects of a youth movement, economic activities and community service.

1. Dedicated, matured and knowledgeable leaders;
2. Functional bureaus;
3. Clear and specific objectives at both the organization and bureau levels;
4. Strong support from the members in all the activities of the organization;
5. Availability of second-line leaders;
6. Blessed by both young and old residents;
7. The activities formulated take into consideration the various age groups of the members – everybody feels satisfied;
8. Operation room with up-to-date data;
9. Constant monitoring of activities;
10. Productive linkage with development agencies;
11. Stable financial standing;
12. Planned activities with few *ad hoc* programmes;
13. Activities with commercial orientation;
14. Responsive to the opportunities created by the government in economic development;
15. Agent of community development;
16. A strong voice in village decision making process;
17. Special provision to involvement of adults in youth activities;
18. Organization of religious activities (normally the domain of older residents) – thus bridging the generation gap; and,
19. All-round activities with the intention of producing a balanced outlook among youth.

The weaknesses of Kg. Endah Youth Organization were not noticeable. However, on closer scrutiny, these weaknesses were mostly related to secretarial/office management practice. The fil-

ing system is not systematic; the minutes of meetings of the various sub-committees do not follow a standard format; and the club's newsletter does not meet the member needs regularly. Even at the present stage of success, Kg. Endah Youth Organization needs further guidance for sustained betterment.

REFERENCES

- ANON. 1989. Laporan Tahunan. Jawatankuasa Kemajuan dan Keselamatan Kampung Endah, Banting, Selangor
- _____. 1989-1992. Laporan Tahunan. Pertubuhan Belia 4B(M), Cawangan Kg. Endah, Banting, Selangor.
- _____. 1987. Penyata Mesyuarat Agung ke-17. Pertubuhan Belia 4B(M) Cawangan Kg. Endah, Banting Selangor.
- _____. 1985. Pertubuhan-pertubuhan di Malaysia. Kuala Lumpur: Majlis Belia Malaysia.
- _____. 1991. Program Induk Belia Negara. Kuala Lumpur: Kementerian Belia dan Sukan.
- _____. 1991. Rancangan Malaysia Keenam [1991-1995]. Kuala Lumpur: Jabatan Percetakan Negara.
- AZIZAN BAHARI. 1991. *Belia dan Masyarakat*. Pulau Pinang: Majlis Belia Pulau Pinang.
- HUSSAIN MUHAMMAD 1983. Faktor-faktor yang mempengaruhi Gerakan Belia di Malaysia. *Ilmu Masyarakat*. 2, p. 6-54.
- KIRK, J. and M.L. MILLER. 1990. *Reliability and Validity in Qualitative Research*. Newbury Park: Sage Publications.
- KRIPPENDORFF, K. 1980. *Content Analysis: an Introduction to its Methodology*. Beverly Hills: Sage Publications.
- MINISTRY OF YOUTH and SPORTS 1991 National Youth Policy. Kuala Lumpur: Ministry of Youth and Sports.
- SHAMSUDDIN AHMAD. 1990. Anugerah KBJ 1988-1989: satu penilaian pembangunan persatuan belia. Kuala Lumpur: Majlis Belia Malaysia dan Kementerian Belia dan Sukan.
- STEWART, C.J. and W.B. CASH. 1988. *Interviewing: Principles and Practices*. Dubuque: WCB.

(Received 23 February 1994)

Motivational Factors that Influence Student Work Attitude

ZAKARIA KASA

Department of Education
Faculty of Educational Studies
Universiti Pertanian Malaysia
43400 UPM Serdang, Selangor Darul Ehsan, Malaysia
and

J. DAVID McCracken,

Department of Agricultural Education
College of Agriculture
The Ohio State University, Columbus, OH 43210, USA

Keywords: Work attitude, work values

ABSTRAK

Majikan mencari pekerja yang mempunyai sikap kerja yang positif di samping mempunyai pengetahuan teknikal dan kemahiran. Oleh itu, pelajar mestilah mempunyai sikap kerja yang positif jika mereka mahu berjaya di tempat kerja. Kajian ini cuba mengenal pasti faktor-faktor motivasi yang mungkin mempunyai hubungan dengan sikap terhadap kerja di kalangan pelajar program diploma di Universiti Pertanian Malaysia. Faktor motivasi termasuklah: (1) aspirasi pendidikan, (2) aspirasi pekerjaan, (3) sebab memasuki program, (4) keagamaan, dan (5) persepsi pelajar terhadap nilai kerja ibu bapa. Persampelan rawak berkelompok digunakan untuk menentukan sampel responden. Sampel yang terdiri daripada 686 pelajar program diploma terlibat dalam kajian ini. Dapatan menunjukkan bahawa sebab memasuki program, keagamaan dan persepsi pelajar terhadap nilai kerja ibu bapa mempunyai hubungan dengan sikap kerja. Pemboleh ubah ini, kemudiannya, dianalisis untuk menentukan koefisien regresi berganda 'semi-partial'. Dapatan menunjukkan sebab memasuki program tidak menyumbang secara signifikan kepada varians dalam sikap kerja. Walau bagaimanapun, keagamaan dan persepsi pelajar terhadap nilai kerja ibu bapa menyumbang kepada varians dalam sikap kerja. Kedua-dua pemboleh ubah ini digunakan dalam analisis peramal terbaik sikap kerja pelajar program diploma di Universiti Pertanian Malaysia.

ABSTRACT

Employers look for employees who have positive work attitudes besides technical knowledge and related skills. Students, therefore, should have positive work attitudes to be successful in the workplace. This study is an attempt to identify the motivational factors that may be associated with work attitudes of students at Universiti Pertanian Malaysia. The motivational factors include: (1) educational aspirations, (2) occupational aspirations, (3) reason for entering the programme, (4) religiosity, and (5) student perception of parental work values. A cluster random sampling was used to determine the sample of respondents. The sample consisted of 686 diploma programme students. The results indicated that the reason for entering the programme, religiosity and student perception of parental work values were related to work attitude. These variables were further analyzed to determine the semi-partial multiple regression coefficients. The findings showed that reason for entering the programme did not account for a significant unique proportion of the variance in work attitude. However, religiosity and student perceptions of parental work values accounted for a significant unique proportion of the variance in work attitude. These two variables were used in the stepwise multiple regression analysis. It was found that the two variables were the best predictors of the work attitude of diploma programme students at the Universiti Pertanian Malaysia.

INTRODUCTION

Employers desire that their employees show positive attitudes toward work. Kraska (1990) stated that it is generally true that employers look for employees who show positive attitudes toward their work, to other employees, and the workplace. Likewise, Crains (1984) reported that employers are concerned with the dependability

and proper attitudes of students more than grades or overall quality of their schools.

Poor work attitudes affect performance on jobs; and the majority of the terminations and refusals to promote employees are due to poor attitudes of the workers (Beach 1981). A poor work attitude is the main reason that causes students to lose their jobs (Oinonen 1984), and is also one of

the primary reasons that cause unemployment among youths (Copa 1981).

An educational programme will not appear effective if students have a negative work attitude when they seek employment upon completion of their programmes. Wall (1966) stated that any country's economic progress is based on educational attainment, degree of training, skill level, attitudes toward work and change, and aspirations of its people. Berryman (1987) suggested that the next wave of educational reform should consider the inclusion of world-of-work values and attitudes in the school curriculum. The ever increasing emphasis on positive work values and attitudes has made many people tend to agree that students exiting from any educational or training programme should possess positive work values or attitudes if they want to succeed.

PURPOSE OF THE STUDY

The main purpose of this study was to determine the relationships between selected motivational factors and the work attitude of students enrolled in the Diploma programmes at the Universiti Pertanian Malaysia. At the same time, this study attempted to determine if a significant portion of the variance in student work attitude could be explained by the selected motivational factors. The motivational factors studied included occupational aspirations, educational aspirations, reason for entering the programme, religiosity, and student perceptions of parental work values. The results of this study will contribute to the knowledge base regarding student work attitudes, which would be useful to administrators, educators, and counselors in assessing the impact of motivational factors on student work attitude, and also in designing appropriate guidance programmes to meet student needs. The knowledge gained from this study could also be related to career behaviour, career development, and career choice; and benefit current career counseling programmes, recruitment programmes, and career planning for future students in the various Diploma programmes at Universiti Pertanian Malaysia.

METHODS

Population and Sample

The population of the study consisted of students enrolled in various diploma programmes at

Universiti Pertanian Malaysia during the 1992/93 school year. The list of students was obtained from the registrar's office of the university. The total number of diploma students at the Serdang campus of Universiti Pertanian Malaysia for the 1992/93 school year was 1676.

The cluster random sampling technique was used to select the sample for the study. Selection was based on the programme and year of study. Each selected programme and year of study formed a cluster. In all, there were twenty clusters. Of these, eight clusters were randomly selected to form a sample consisting of 686 students.

Instrumentation

The instruments were developed to measure work attitude, perception of parental work values, and religiosity. Religiosity was measured by the responses of subjects as to whether religion was an important part of their lives. Prior to pilot testing, the instruments were reviewed for content and face validity by a panel of experts consisting of faculty members at Universiti Pertanian Malaysia. Instruments were pilot tested with a group of 30 diploma students who were not in the sample of the study. The reliability of each of the instruments was analyzed by using the Cronbach's alpha to produce internal consistency coefficients. The reliability coefficients for the work attitudes, perception of parental work values, and religiosity instruments were .90, .71 and .83 respectively.

Data Analyses

For each variable of interest, descriptive data were analyzed as frequencies and measures of central tendency by using the appropriate statistics for the type of data. The dependent variable, work attitude, was treated as interval data. The Pearson product moment correlation coefficient (r) was used to determine the relationships between work attitude and religiosity and also between work attitude and student perceptions of parental values. The relationship between reason for entering the programme (categorical data) and work attitude (interval data) was determined by dummy coding the levels of the independent variable. The multiple correlation coefficient (R) was then used to determine the relationship between the two variables. Semi-partial multiple regression coefficients were calculated for each independent variable to

determine the unique contribution of the variance in work attitude by each of the independent variables. A stepwise multiple regression analysis was completed to determine which motivational factors could best predict student work attitudes.

RESULTS

Of the 686 anticipated respondents, 618 (90%) returned the questionnaires. Four responses were incomplete and were not used in the analysis. Subsequently, only 614 (89%) of the returned questionnaires were analyzed.

Of the 614 respondents, 322 (52%) were males, and 292 (48%) were females. The majority (89%) of respondents were Malays, and their average age was 19.6 years.

Work Attitudes of Respondents

The work attitude of respondents is reported in Table 1. In general, respondents had a positive work attitude (Mean = 4.1, sd = 0.3).

Motivational Factors

About one-half of respondents aspired to obtain the Ph.D. Degree; 69 (11%) the Masters Degree, and 105 (17%) were undecided about the highest level of education they aspired to attain.

The respondents in the study hoped to join a variety of occupations. The largest percentage (17%) wished to take on administrative jobs; 16% aspired to become teachers; while 12% hoped to become lecturers. The other professions included business, accountancy, social work, and engineering.

More than 177 (29%) of the respondents reported that interest was the main reason why they enrolled in the programme; 25% said they did not have any other choice in furthering their education. The other reasons were: to find jobs (21%), for self-satisfaction (9%), and family advice (8%). Less than one percent said that peer advice made them enroll in the programme.

The religiosity of respondents is reported in Table 1. As a whole, respondents indicated that religion was a very important part of their lives (Mean = 6.6, sd = 0.6).

Student perceptions of parental work values is also reported in Table 1. In general, respondents perceived their parents had "moderately positive" work values (Mean = 5.8, sd = 0.7).

TABLE 1
Summary statistics for the measures of student perceptions of parental work values, religiosity, and work attitudes.

Variable	Mean	SD	Min	Max	No. of items
Religiosity	6.7	0.6	2.6	7.0	8
Perceptions of parental work values	5.9	0.7	2.6	7.0	10
Work attitude	4.1	0.3	2.8	4.8	25

n = 614

Scale for religiosity and student perceptions of parental work values (1) Strongly disagree, (2) Moderately disagree, (3) Slightly disagree, (4) Uncertain, (5) Slightly agree, (6) Moderately agree, and (7) Strongly agree. Scale for work attitude: (1) Strongly disagree, (2) Disagree, (3) Uncertain, (4) Agree, and (5) Strongly agree.

Relationships Among Variables

The relationships between the motivational factors and work attitude are shown in Table 2. The occupational and educational aspirations were not found to be significantly related with work attitude. These findings indicated that regardless of occupational and educational aspirations, respondents have positive attitudes toward work. However, religiosity, reason for entering the programme, and student perceptions of parental work values were found to be significantly related with student work attitude. Students' perception of parental work values correlated more highly with student work attitude than any other factors ($r = .41$). The data revealed that reasons for entering the programme could be arranged in the following order of priority: (1) self-satisfaction, (2) to find jobs, (3) interested in the programme, (4) no other choice for further study, (5) parental advice, (6) peer advice, and (7) other reasons which included the possibility of being promoted into the programme, and using the programme as a stepping stone to higher level courses.

A semi-partial correlation coefficient was calculated to determine the unique portion of the variance in work attitude that could be explained by each of the variables that was significantly related with work attitude (Table 3). Students' perceptions of parental work values accounted for 14% of the variance in work attitude when the effects of the other factors were removed ($sr^2 = .1426$, $F = 106.5$, $p < .001$). Reason for entering the programme accounted for 1.5%

of the variance in work attitude, but it was not significant ($sr^2 = .0151$, $F = 1.88$, $p > .05$). Religiosity accounted for only .5% of the variance in work attitude ($sr^2 = .0058$, $F = 4.33$, $p < .001$).

TABLE 2
Relationships between motivational factors and work attitude

Characteristics	Correlation coefficient	Significance (p)
Occupational aspirations	.03 ^r	.24
Educational aspirations	-.01 ^r	.44
Reason for entering the programme	.15 ^R	.02
Religiosity	.17 ^r	.00
Perceptions of parental work values	.41 ^r	.00

r = Person product moment correlation coefficient

R = multiple regression correlation coefficient

TABLE 3
Squared semi-partial multiple regression coefficients of work attitude on independent variables

Independent variables	K _a	K _b	sr ²	F
Perceptions of parental work values	7	1	.1426	106.65**
Reason for entering the programme ^c	2	6	.0151	1.88(n.s)
Religiosity	7	1	.0058	4.33*

R² = .1909

Adjust R² = .1802

df. (8,605)

** p < .001

* p < .05

K_a = Number of independent variables

K_b = Number of independent variables onttrolled

c = Dummy coded into six variables set for this analysis

TABLE 4
Stepwise multiple regression of work attitude on the significant independent variables

Independent variables	R ²	R ² increment	F
Perceptions of parental work values	.1688	.1688	124.24*
Religiosity	.1758	.0070	65.14*

* p < .001

R² = .1688

Prediction of Student Work Attitude

A stepwise multiple regression analysis was used to determine which motivational factors would best serve as predictors of students' work attitudes. As shown in Table 4, student perceptions of parental work values and religiosity were sufficient predictors of work attitude. Student's perceptions of parental work values explained the greatest portion of the variance ($R^2 = .1688$). The equation for predicting the work attitudes of diploma programme students at Universiti Pertanian Malaysia was:

$$Y = 2.7056 + .1802X_1 + .0451X_2 \quad (1)$$

DISCUSSION

Employers need employees with good attitudes toward work. Programmes aimed at developing positive work attitudes in students could contribute to the employability of graduating students. The findings of this study showed that, as a whole, diploma programme students at Universiti Pertanian Malaysia have a positive work attitude (Mean = 4.1, sd = 0.3). The low standard deviation, however, indicates that not much variation exists among students in work attitude. In other words, the respondents belong to a homogenous group. This homogeneity has both positive and negative impacts on the students and the programme. Students are likely to share many of the same challenges, frustrations, and hopes, which could contribute to a diploma programme environment. Conversely, the homogenous group of students may not bring a healthy diversity of beliefs and aspirations to the programme.

Based upon the stepwise regression analysis, two motivational factors can be used as predictors of work attitudes of diploma programme students at Universiti Pertanian Malaysia. These factors are students' perceptions of parental work values and religiosity.

The findings of the studies by Perrone (1957), Wagman (1968) and Winter (1981) showed that the perceived work values of parents were related to student work attitude. Mannheim (1988), in a study of the Israeli high school students, revealed that parents' values and work attitudes significantly explained the variance in adolescent work attitudes. The findings of these authors are congruent with the findings of this study.

The similarity in the findings of these studies indicate that regardless of the society and culture of students, parents play a critical and vital role in developing their children's work attitudes.

There are several ways by which parents can carry out this task. Among others, they can occasionally bring along the children to their workplace to see the work they perform. Further, parents can send their children to workshops where ways of developing positive work attitudes are taught. Besides, parents should take the initiative to attend seminars or workshops on how to develop positive work attitudes in their children. In addition, parents could show a positive attitude toward work through their behavior and thinking. Children usually observe the behavior of their parents, and they learn behavior through imitation (Bandura 1977).

Religiosity was also found to be an important factor that influences work attitude. Parents, lecturers, the community, and the Islamic Center of the University can play their roles in sustaining religiosity of the students. Parents should encourage and motivate their children to learn more about religion. Lecturers might consider the inclusion of religious teachings relating to work attitude in their courses. The community should provide the places and support for the teaching of religious subjects. The Islamic Center of the University should conduct various religious activities for students.

A finding of this study also showed there was that a significantly low positive relationship between reason for entering the programme and work attitude. About 25% of respondents indicated that the main reason they enrolled in the programme was that they did not have any other option when they chose to further their studies. There is a possibility that students were offered places in the programme, not on their preferences but on the places available in the programme. Due to the difficulty of getting places in the higher learning institutions in the country, students tend to accept whatever offer they get.

RECOMMENDATIONS

Based upon the findings of this study, the following recommendations are offered:

1. Parents, teachers, and the community should project positive work attitudes for the younger generation to imitate.
2. A course on religious knowledge and work ethics should be offered to help students understand the interrelationship between religious doctrines and living a useful life.
3. Information about the realities of career patterns, work environment, institutional bureaucracies, and common work-related frustrations should be provided to prepare students for employment after graduation.
4. Students should choose areas of study in which they are interested. They would then be more likely to find satisfaction in their programme of study which in turn will help them develop positive attitudes toward work in the area of their choice.
5. The scales of work attitude, religiosity, and student perceptions of parental work values should be tested further with prospective and currently enrolled students. Of particular relevance would be a longitudinal study involving subjects from the time they apply for admission to a diploma programme through their first five years of work. The instruments used in this study should also be tested with the students of other institutions to confirm their reliability.
6. This study should be replicated with students from various cultures and groups in Malaysia to confirm or disclaim the results of this study; or to detect changes in work attitude over time.
7. Qualitative studies examining the relationship between student characteristics and work attitude should be conducted for comparative purposes. These qualitative methods should include case studies, in-depth interviews, and participant observations.

REFERENCES

- BANDURA, A.1977. *Social Learning Theory*. Morristown, NJ: General Learning Press.
- BEACH, D.P. 1981. Preliminary development of an effective work competencies testing programme. Paper presented at the annual meeting of Eastern Educational Research Association (4th., Philadelphia, PA, March)
- BERRYMAN, S.E. 1987. Shadows in the wings: The next educational reform. Occasional paper No. 1. New York: National Center on Education and Employment.

- COPA, G.H. 1981. Unemployed youth: Renewed effort at serving a client group. In: *The Future of Vocational Education*. ed G.I. Swenson. Arlington, VA: The American Vocational Association Inc. p. 195-212.
- CRAINS, R.L. 1984. The quality of American high school: What personnel officers say and do about it. Baltimore, MD: Johns Hopkins University, Center for Social Organization of Schools.
- KRASKA, M.F. 1991. Work values of high school vocational education students. ERIC publication.
- MANNHEIM, B.C. 1988. Social background, schooling, and parental job attitudes as related to adolescents' work values. *Youth and Society*. **19** (3): 269-293.
- OINONEN, C.M. 1984. Business and Education Survey: Employer and Employee Perceptions of School to Work Preparation. Parker project No. 3. Bulletin No. 4372. Wisconsin: Parker Pen Co.
- PERRONE, P.A. 1967. Stability of values of junior high school pupils and their parents over two years. *Personnel and Guidance Journal* **46**:266-274.
- WAGMAN, M. 1968. Perceived similarities in occupational value structure. *Vocational Guidance Quarterly* **16**:275-281.
- WALL, J.E. 1966. Important factors concerning human resources in Mississippi (Preliminary Report No. 11) State College, MS: Research Coordinating Unit for Vocational-Technical Education.
- WINTER, J.J. 1981. The influence of perceived parental work values and parental environment upon the development of the work values of male college students. Ph. D dissertation. The Catholic University of America, 1981. *Dissertation Abstracts International*, 42, 1611A.

(Received 2 March 1994)

Media Technology, Adult Education, and National Development: The Malaysian Experience

L. EARLE REYBOLD

Center for International Mass Communication Training and Research,
Grady College of Journalism and Mass Communication,
The University of Georgia, Athens, U.S.A.

Keywords: Media technology, adult education, national development, Malaysia

ABSTRAK

Kegunaan media teknologi di dalam program pendidikan orang-orang dewasa di Malaysia di dalam konteks pembangunan kebangsaan secara keseluruhan telah dikaji. Metodologi kualitatif yang merangkumi pengawasan bukan peserta, laporan temuduga, dan koleksi arkib bahan-bahan berita, syarahan, dan lain-lain bahan bercetak digunakan untuk mengkaji tiga perkara: 1) mentakrifkan asas dan fungsi kebolehan menulis dan membaca di Malaysia, 2) peranan media teknologi di dalam pendidikan orang dewasa, 3) kesan sosial yang timbul dan kesan format pendidikan yang di pengaruhi oleh media ke atas perkembangan peribadi, sosial, kebudayaan dan politik. Rangka teori untuk kajian ini termasuklah model-model pembangunan kebangsaan, kebolehan membaca dan menulis di kalangan orang dewasa di negara-negara membangun, dan pendidikan berjarak sebagai suatu penyampaian sistem pendidikan, dengan analisa keputusan di dalam satu model neo-modernisasi pembangunan kebangsaan. Walaupun tiada bukti bahawa suatu asas pendidikan orang dewasa yang sistematik wujud di Malaysia, terdapat berbagai aktiviti berkaitan yang tidak formal untuk orang-orang dewasa, yang mana kebanyakannya dihasilkan atau dipengaruhi oleh media. Kajian ini mempersoalkan kesesuaian teknik pendidikan berjarak untuk mendidik orang-orang dewasa di Malaysia yang tidak lagi berada di bawah sistem persekolahan formal. Implikasi hasil kajian ini untuk para pendidik, pentadbir dan pembuat polisi di Malaysia, dan kesannya ke atas teori pembangunan kebangsaan dibincangkan.

ABSTRACT

This article explores the use of media technology in Malaysia's adult education programmes within an overall national development context. A qualitative methodology incorporating non-participant observation, reportorial interviews, and archival collection of news articles, speeches, and other printed materials was used to investigate three areas of research questions: 1) defining basic and functional literacy in Malaysia, 2) the role of media technology in adult education, and 3) the social impact mediated and media-enhanced educational formats on personal, social, cultural, and political development. The theoretical framework for the study includes national development models, adult literacy in developing countries, and distance education as an educational delivery system, with the analysis of the results within a neo-Modernization model of national development. Although no evidence of systematic adult basic education in Malaysia was found, there are diverse nonformal functional literacy activities for adults, many of which are mediated or media-enhanced. The study questions the appropriateness of distance education techniques for teaching Malaysian adults who are no longer in the formal school system. The implications of the findings for Malaysian educators, administrators, and policymakers, and the impact of these results on national development theory are discussed.

INTRODUCTION

Developing countries often target education, particularly adult basic and functional literacy formats, as a prominent variable in national development strategies, emphasizing the need for human resource development. Adult education in developing countries differs greatly from that in developed nations, partially because of different

needs of the nations and peoples, partially because of different resources available to initiate and to maintain education programs; also because of the nation-building role that education plays in overall development of the nation (Darkenwald and Merriam 1982). In some instances, media have been conscripted by developing countries to actively participate in national development plans

as distributors of both formal and nonformal adult education.

Western researchers have shown little interest in the effectiveness of media-enhanced and mediated adult basic and functional literacy programs in developing Southeast Asian countries. Probable reasons for this apparent dearth of research literature include language barriers and a lack of interest within scientific communities due to prejudices and misconceptions concerning the value of studying media-enhanced educational formats within developing Southeast Asian countries.

Media are potentially powerful tools for overcoming obstacles to adult education. The Asia-Pacific Programme of Education for All (APPEAL) has noted three areas in which the media can be used to address barriers to adult education: (a) gaining entrance to inaccessible rural areas, (b) connecting remote groups, and (c) introducing new teaching methods that empower an education system based on the needs of the local people (Jizawa 1990). But media are implemented and used within a particular sociocultural context. Culture, economics, politics, and other factors influence what resources are chosen for the dissemination of education, who is to receive that education, and the purpose and format of the education.

To ensure a more complete and contextual understanding of adult education, the topic should be studied within a holistic framework of various disciplines, such as communications and national development (Charters 1981) (Darkenwald and Merriam 1982; Nerone 1988; Graff 1988; and Ewert 1990). Because adult education, particularly literacy training, differs within various cultures, the adoption of education models without considering their possible impact could be harmful to development needs. Education programmes need to be developed according to specific needs of a culture, rather than transplanted from foreign models (Knowles 1977; Darkenwald and Merriam, 1982).

Although the need in many developing countries is the reorganization of existing models of adult education so that they will be predicated on context and culture and be equitably accessible, some countries which have exemplary systems of general education, fail to

reach segments of the adult population. The focus, in this case, turns from educational methods models to educational delivery models.

The importance of the advanced media technology as a tool for disseminating educational programming was realized in South and Southeast Asia after the much heralded and highly successful SITE program in India in the early 1960s, which proved that the media could be a useful tool in literacy campaigns (Lahiri 1981). Scheller (1983) contends that the media are useful tools for the dissemination of information and education and they should be employed more often. Although media are not widely used for adult education purposes, their potential is recognized. Distance education may also be used to supplement conventional educational systems in areas where there is a shortage of educators (Blume and Scheller 1984).

Purpose of the Study

Vision 2020 is Malaysia's goal of economic success and conceptualizes national development to be accomplished in less than three decades. The government of Malaysia is determined that the country will have an impact on world culture, economics, and politics. To achieve that goal, Malaysia has directed media and educational systems to mold public opinion and to create a consensus for national development. The purpose of this study is to examine the uses and potential uses of media technology for adult education in Malaysia. The study is exploratory and descriptive, within the context of Malaysia's national development policy, *Vision 2020*.

Review of the Literature

Theoretical models of national development may be divided into three categories: (a) liberal/capitalist models, (b) Marxist/socialist models, and (c) monistic/participatory models (Mowlana and Wilson 1988). Liberal/capitalist models of national development are based on the dominant Western paradigm known as Modernization. National development, in this perspective, is a linear progression from traditional society to modern society. Proponents of modernization portray the media as innovators of economic development. An assumption of the dominant paradigm has been that modernization is inherently good and will always lead to good results. However, development

that focuses on capital-intensive technology may have a negative impact on a nation, such as overcrowding of cities, pollution, and unemployment.

Marxist/socialist models of national development propose that development should be based on popular participation that is a direct result of "awareness, social change and revolution" (Mowlana and Wilson 1988). Major criticisms of the Liberal/capitalist and the Marxist/socialist development model include a growing disbelief in the media's ability to effect change directly, an overemphasis on values not consistent with developing countries' needs, and a lack of media credibility, particularly if the media are government-owned (Fair 1989; Mowlana and Wilson 1988).

Monistic/participatory models of national development stress individual participation, mass mobilization, group efficacy, and delegation of responsibility for planning at the local level (Rogers 1976). The emphasis of monistic/participatory models, which are particularly favored by researchers in Third World nations, is on cultural values and social unity; and development strategies of these models encourage individual participation and community development (Mowlana and Wilson 1988). Literacy, according to the monistic/participatory models of national development, is a stepping-stone to personal empowerment and cultural development, rather than to modernization and national economic development.

METHODOLOGY

This exploratory case study examines the uses and potential uses of media technology for adult education in Malaysia – as these concepts are being formulated and actualized in the country. The nature of the study calls for qualitative rather than quantitative methods. Across-the-board generalizations of results to other audiences – a goal of quantitative research – are not feasible, nor is generalizability the purpose of qualitative analysis (Cronbach 1975; Guba and Lincoln 1981; Lincoln 1990; and Patton 1990). In contrast to a quantitative generalizability to groups not studied, qualitative studies seek comparability and translatability of findings (Goetz and LeCompte 1984). Comparison to other groups can be achieved if the researcher defines and delineates clearly the characteristics of the group under study. Trans-

latability refers to the explicit identification of research methods, analytical categories, and characteristics of the phenomena or group so that "comparisons can be conducted confidently and used meaningfully across groups and disciplines" (Goetz and LeCompte 1984).

Sampling Procedure

Because statistical analysis and generalizability were not goals of the study, convenience and purposive sampling techniques were preferred to those used for probabilistic sampling (Goetz and LeCompte 1984). The researcher relied heavily on contacts and government officials for permission at each phase of the study; therefore, interviewees were at times suggested by agencies and educators in Malaysia, not always at the discretion of the researcher. Because the study is an exploration of how media are used in adult education programs in Malaysia, policymakers, educational administrators, and educators were interviewed about what media are currently used in adult education programmes and potential uses of media for future adult education.

Data Collection Techniques

Three forms of data collection were used for this project: observation, interviews and archival collection of data (Merriam 1990; Patton 1990). Observations of distance learning were limited to an off-campus university program at Penang. Reportorial interviews with government officials and educational personnel were the primary source of data. Government officials were interviewed about educational policy and the role of media in adult education. Administrators and educators were asked about mediated and/or media enhanced learning formats, administrative costs, technological advances, problems, and general concerns about adult education.

An important aspect of this study is the archival collection of data – documents, a personal journal, newspaper clippings and photographs (Goetz and LeCompte 1984; Patton 1990; Merriam 1990). Documents collected by the researcher while in Malaysia include speeches made by government officials and education/national development analysts, maps of current locations of distance learning facilities and government publications concerning the study. The researcher collected

28 news articles from two prominent English language newspapers, *News Straits Times* and *The Star*, dealing with development, education, national unity and media technology in Malaysia. Newspaper clippings from these two local newspapers show the level of interest about adult education and national development in Malaysia, along with cultural, social, and political phenomena that affect the study.

Qualitative methods are useful tools for studying a topic within the context of culture. Triangulation, the combination of several methods for gathering data, allows the researcher to cross-check data collection and "enhances the scope, density, and clarity of constructs developed during the course of the investigation" (Goetz and LeCompte 1984). Method triangulation also strengthens the validity and credibility of findings by overcoming "the problem of relying too much on any single data source or method" (Patton 1990).

Research Questions

The study addressed the following questions divided into three broad areas: literacy, media technology, and the social impact of media technology.

Basic and Functional Literacy

Is the definition of literacy rooted in the traditional modernization development paradigm where urbanization is a key aspect of development and education is a step toward national development, or is literacy considered a personal achievement that empowers the individual to develop himself or herself within his or her society? How, by whom, and for what purpose is literacy defined in Malaysia? Is there any conflict between the definition of literacy according to the government of Malaysia and that used by adult educators in Malaysia?

Media Technology

What is the role of media technology, particularly of computers and satellite transmissions in adult basic and functional literacy programs in Malaysia? How are these technologies being applied in learning situations? How do media technologies such as computers and communications satellites affect the definition(s) of literacy in

Malaysia? What are the advantages and disadvantages of using this technology? What is the primary audience for adult basic and functional literacy programmes using this technology?

Social Impact

What possible impact do these adult basic and functional literacy programmes have on personal, social, cultural and political development? Are mediated and media-enhanced basic and functional literacy programmes reaching previously inaccessible audiences, such as women, particularly those in rural areas? How do Malaysians incorporate educational training in their everyday lives?

RESULTS OF THE STUDY

Not many countries place such importance on the educational system as does Malaysia, which expects education to initiate radical personal and social change, nation-building and even cultural unity. The national education system in Malaysia has sought to unite the peoples of three distinct races, cultures, and religions under a common banner of national unity, to erase communalism, and to forge nationalism. Government officials have determined the role of education in national development to be more than just influential, but to be a change agent.

Literacy and Functional Competency

Literacy in Malaysia is defined by a majority of those interviewed as the ability to read and write, and education is a vehicle for national development. In general, government officials avoided giving direct definitions of literacy, most claiming adult literacy was not under their jurisdiction while others citing national and international publications as references for adult literacy in Malaysia. However, there is a distinct difference between the focus and definition of literacy among various ministries in Malaysia, with the Ministries of Education and Information equating literacy with schooling and the Ministry of National and Rural Development correlating literacy with functional qualities of literacy. The variances among officials are attributable to the clientele they serve.

Although there was a reluctance by those government officials interviewed to verbally discuss a precise definition of literacy, particularly adult literacy, the unwillingness did not seem to be due to a negative attitude toward the subject. One official at the Ministry of Education praised the educational system for superb enrolment percentages – 99 percent in the primary level and 80 percent in the secondary level in Peninsular Malaysia. He equated literacy with basic reading and writing skills learned in school, and said the “purpose of schooling is to produce self-sufficient individuals” (Interview, Jan. 28, 1992).

The education of these individuals for the purpose of national economic growth is warranted by Malaysia’s overall development schematic:

Education’s role in development is providing economic skills to be able to survive. . . . Education’s importance in development is manpower. Therefore, the curriculum focuses more heavily on vocational studies, on applied rather than pure science. The curriculum is designed to fit employers’ needs (Interview, Jan. 28, 1992).

Clearly, the motivation for national development is economic, reminiscent of the Modernization paradigm, with individuals regarded as an economic resource in a top-down development strategy. This government official’s remarks reflect the purpose of formal schooling which is more predominant in urban, industrialized areas than in rural, communal kampungs.

Mr. Hoesne B. Hussein, Deputy-Director General of the Ministry of Community and Rural Development (KEMAS), also the resource person from Malaysia to UNESCO, authored “The Impact of Functional Literacy on Human Resource Development,” perhaps the most definitive outline of adult functional literacy in Malaysia. His concept of literacy is applied in rural, less developed areas of the country in which formal schooling has less impact than in urban, industrialized areas.

In trying to explain functional literacy, it is best to start with literacy as a concept. Literacy is generally taken to mean the

ability to read, write and apply numeracy skills. A person is considered literate when he or she has sufficient reading, writing and numeracy skills to continue to learn alone without the continuing guidance of a teacher. The word functional on the other hand denotes the ability to function or being in possession of a certain skill to perform. Thus the concept “Functional Literacy” is used to show the ability to apply reading, writing and numeracy skills in a socio-economic situation required by a given environment (Hoesne, 1991,).

Literacy in Malaysia is officially defined by the Ministry of Education, but the Ministry of National and Rural Development is pivotal in deciding the application of that definition in rural and inaccessible areas of the country. Literacy, as defined by the Ministry of Education, consists of basic reading and writing skills that are learned in the formal educational system determined by a central government. But the Ministry of National and Rural Development adds a functional component to this definition of literacy, teaching agriculture, health, home economics, and leadership skills. The purpose of education, whether formal or nonformal, is to develop human resources and to solidify national unity – as both are priorities of economic development.

Educators were much more vocal than government representatives about their definition of literacy and the role of adult education in Malaysia. Most agreed that literacy can be defined as basic reading and writing skills learned in the formal school system and considered education a vital link to national development of Malaysia. Literacy was generally defined in interviews with adult educators and education administrators in both rural and urban settings as the ability to read and to write, with those in rural areas adding a functional capacity to the definition. At the time of the study, there were no adult basic literacy courses being taught within the formal education system of Malaysia.

Adult basic education courses were taught in Malaysia in the 1950s and 1960s, but a lecturer at Universiti Malaya, says “adult education programs are very *ad hoc*, and there is nothing on a continu-

ing basis" (Interview, Jan. 16, 1992). KEMAS, she adds, does teach income-generating skills, particularly for women interested in entering cottage industries, but there is no consistent adult basic education program in Malaysia (Interview, Jan. 16, 1992).

In the urban context then, literacy in Malaysia is a by-product of schooling and can be equated with reading and writing skills, and should be considered an effective element of national development. Because literacy is considered to be achieved through schooling, literacy rates therefore conform to school enrolment rates – but there is a small contingent of educators, lay persons, even government officials who define literacy within a more holistic framework of education and national development.

An administrator at Universiti Sains Malaysia's Centre for Off-Campus Studies, agrees that the purpose and role of education is to foster and maintain development. "We [Centre for Off-Campus Studies] are specifically trying to upgrade a specific group of the population so they can contribute to development of the nation" (Interview, Feb. 1 1992).

Social organizations in Malaysia arrange much of the nonformal adult education activities, most of which do not include basic literacy skills of reading and writing. These organizations receive no government support and, for the most part, are managed by women who want to address social injustices and inequalities that correlate to poverty, gender and ethnicity (Interview, Jan. 23 1992).

There is no conflict as such between government officials and adult educators concerning the definition of literacy used in the formal education system. However, Self-development models of education are gaining recognition in Malaysia, particularly in the nonformal sector of education. Some educators and government officials express a desire to incorporate various learning models such as lifelong learning and/or adult functional competency programmes.

Micro-level development, particularly of the educational needs of rural groups, is becoming more popular among government agencies, such as those affiliated with UNESCO. Also, private organizations provide adults with nonformal educational opportunities.

Media Technology

Advanced media technology plays a minimal role in the current adult basic and functional literacy training programmes in Malaysia, partially because adult basic education has not been approached in a systematic manner. Communication satellites do provide distance education throughout Malaysia at the tertiary level of formal education, but there is no definitive use of this technology for nonformal adult education. Computers are used infrequently for nonformal educational activities, but usually in planning and teacher training, or for publishing in-house publications, but they are not used directly in the learning experience. Media most frequently used for formal educational programming are television and radio – to which adults have access, with video being an effective supplemental tool in the nonformal sector, where adults are the target audience.

Some adult educators are reviewing the feasibility of implementing advanced media technology in nonformal adult education. Although educators are divided on the usefulness of media technology in adult education, the government of Malaysia has determined the broadcast media, particularly television, to be pivotal to education and development. "The role of media," says a government official in the Ministry of Information, "is to inform, to educate, to mold public opinion, to entertain" (Interview, Jan. 29 1992).

Government-operated television channels TV1 and TV2 of Radio-Television Malaysia allotted an average of 37 percent of their total programming in 1990 to various educational shows. Most of the programming targets primary and secondary level schoolchildren and complements their classwork. Radio channels allot considerably less time to educational programming, with a concentration on health and home awareness. No broadcasting time had been allotted to basic literacy skills (Interview, Jan. 29 1992).

One of the most advanced uses of media technology in adult education is the Centre for Off-Campus Studies at the Universiti Sains Malaysia, a distance learning facility in Penang supported financially by tuition and government funding. But this distance learning facility operates only for those adults in formal schooling at the tertiary level. Integrated Systems Digital Network (ISDN)

provides video conferencing without satellites to 13 regional study centers, with at least one for each state. Established in 1971 and funded partially by the Ministry of Education, the Centre has one main advantage over on-campus learning: cost. An administrator at the Centre says electronic media are less expensive than most printed materials, so reduced expenses are passed to the student (Interview a, Feb. 1 1992). On-campus tuition in 1992 was about M\$1,004 per academic session, whereas off-campus students paid M\$800. But the biggest disadvantage, she says, is also cost: the Centre cannot afford equipment needed to expand the program and some courses must meet on campus during the semester break. Meanwhile, the Centre is working with the Ministry of Education toward the establishment of an "Open University" for the Malaysian populace (Interview a, Feb. 1 1992).

Another administrator at the Centre agrees that the program is moving toward using media to help educate the general population. He expects the Centre to utilize media technology such as teleconferencing in its involvement in continuing education programmes, such as those for small business owners. For the past few years, these programmes have been dependent on correspondence courses, but this type of programme lacks interaction (Interview b, Feb. 1 1992).

Although advanced media technology such as satellite teleconferencing is available to Malaysian adult educators, most see little need for its use outside the formal education system. Because there is no systematic adult literacy programme in Malaysia, the concept of distance learning technology cannot be applied to the general population for literacy training and its level of usefulness cannot be determined.

Social Impact

Sociocultural development is a primary objective in Malaysia, with the needs of society paramount to those of the individual. The role of adult basic and functional literacy courses is to ensure smooth and rapid economic development in rural or remote areas of the country without drastically affecting cultural distinctions among the ethnic groups in Malaysia. Human resource development in Malaysia is the preparation of individuals through education and training, to be productive

and economically independent, thereby contributes to the overall economic development of the nation.

Malaysia has been successful at sustaining a consistent and remarkably high level of economic growth while maintaining a low rate of inflation. World Bank figures place Malaysia's per capita GNP growth rate at a four percent average between 1965 and 1989; in terms of growth, it ranks Malaysia 11th out of 124 countries. Exports of goods and services grew by 9.2 percent per annum in the last decade. Malaysia is looking toward greater industrialization and toward entering new international trade markets (Salmah and Rathi 1992).

Development of Malaysia as a political entity is ascribed to successful national unity and nationalism campaigns promoted by the media, particularly the broadcast and print news media services and adult educational programming. Media saturation of these objectives provides the populace with a political awareness of their own country as a democratic nation that affords the individual the right to vote, to make choices and/or changes in government. Mediated adult literacy programmes are not being incorporated in the education system at this point in time, but media-enhanced adult functional competency programmes are popular and are reaching remote audiences. Broadcast media support the government's education policies of promoting family values, agricultural and home economics skills, and health and hygiene awareness, particularly among rural women. These women are targeted by the Malaysian government for topical broadcast educational programming, and local radio stations provide ethnic-oriented programming.

Adults assimilate educational training in two ways: their political and social ideologies are strengthened and their skills are enhanced. Both are equally-important goals of the Malaysian government. The government of Malaysia has incorporated strategies for national development into all phases of education, and adults participating in educational programmes are exposed to cultural and socio-political propaganda intended to garner public support for the national development policy, *Vision 2020*. Family values, religious tolerance, national unity, nationalism – the government of Malaysia entrusts the media and the educational systems with delivering these substan-

tive and consequential elements of national development to the people of Malaysia. Much of the adult educational training is nonformal, with the media responsible for supporting the government's development and national unity policies through news and entertainment. These policies are reiterated in television and radio broadcasts, billboards, posters, newspaper articles, formal education settings, and business dealings.

Opportunities for development of new skills and sharpening of others are other products of adult education training. Rural housewives listen to the radio or watch television and learn how to purify water; farmers scan printouts of satellite mappings and decide the condition of their land; the urban elderly watch religious programming on television and others receive religious instruction using videotape; workers take part-time courses using distance learning facilities; young workers enhance their career opportunities through computer training. All these opportunities would not have been possible without media.

Analysis of Results within a National Development Paradigm

Vision 2020, as a blueprint for national development in Malaysia, is a modern execution of a neo-Modernization paradigm in which economic success is the barometer for national development. Although the national development plan of Malaysia is rooted mostly in the Modernization paradigm, it is evident that the government of Malaysia has incorporated some tenets of the Self-development/Participatory paradigm. Malaysia has incorporated tenets of the Self-development/Participatory models of development into a mostly Modernization paradigm, discerning for itself the best characteristics of each model and creating a development framework that combines Participatory and Modernization principles into a neo-Modernization model of national development. This model serves the country's economic development needs and, at the same time, strives to protect cultural distinction and promote cultural harmony. The major tenets of Modernization (democratization, urbanization, education, and industrialization) are incorporated in Malaysia's *Vision 2020*.

Macro-level development is practised by the government of Malaysia, with centralized planning

by the government, plus enforcement of government policy through top-down communication channels. The government chooses the desirable form of national development, formulates and implements development policies, and reinforces the strength of those policies with government regulations.

Media's role in the Modernization paradigm is to prepare the people for economic development and "nation-ness," a self-recognition of the country's nation status among other nations. Malaysia has entered the realm of international economics and boasts of its accomplishments as a developing nation. As innovators of economic development in Malaysia, the role of media in national development is to mold public opinion concerning government economic policy and to foster pride in Malaysia's economic capabilities. Malaysia's media system, as a voice of the government, affirms these values in programming, content and advertising – a characteristic of the Participatory model of development.

Human resource development is integral to overall national development in Malaysia. Individuals are educated and trained for the work force to provide the country with sufficient and productive labor, providing Malaysia with a rudimentary base for economic success. But culture may be a more dynamic factor than paradigmatic concepts in Malaysia's promoting the good of the country rather than of the individual.

Malaysia recognizes that development of its own resources, rather than a dependence on other nations, is crucial to its national development. In the past, Malaysia had concentrated on tin and rubber production, but those international markets are declining. The country is now moving toward a more diversified industrialized society. Malaysia now manufactures items ranging from the Proton SAGA, the country's contribution to the automobile industry sold mostly in Malaysia, to computer chips sold around the world. To fully equalize economic development around the country – not just in urban pockets of industrialization – Malaysia is focusing on the construction of an adequate infrastructure: roads, electricity supply, clean water and school facilities. Trying to rejuvenate the existing infrastructure put in place by the British during colonization, Malaysia desires to connect rural and urban areas, East and

West Malaysia, communal groups and cities to allow everyone to participate in *Vision 2020*.

Though Modernization has its detractors, many of the key tenets of the dominant paradigm have proved to be successful in Malaysia. The national economy of Malaysia is growing more rapidly than those of many industrialized countries, and *Vision 2020* is as popular with the Malaysian populace as it is with the government. But in Malaysia the dominant paradigm has evolved to address the criticisms leveled by advocates of Self-development. This neo-Modernization model of national development retains an economic focus, but incorporates cultural and social concerns as primary, rather than secondary, issues of development. By offering a holistic view of national development, one that takes into consideration the synergistic effect of personal, social, cultural and political dynamics, the paradigm has become more realistic and plausible.

Criticisms leveled at the Modernization paradigm – other than its narrow economic focus – have been dealt with in a neo-Modernization application of the dominant model of national development in Malaysia. First, the concept of ethnocentric intellectualism in which the developing country takes *a priori* blame for its economic status is replaced by the concept of cultural imperialism in which developed countries perpetuate underdevelopment to protect their own economic superiority. Second, economic aid is not accepted indiscriminately from developed countries, thus avoiding economic dependence on those countries. Instead, Malaysia has fostered strong international trade agreements, developed its own natural resources, and revised its industry and agriculture to compete in the world economy.

This neo-Modernization model addresses not only the criticisms of other national development paradigms, but strengthens the validity of some traditional tenets of the dominant paradigm. A primary doctrine of Modernization is that media exposure is an effective attitudinal and behavioral change agent that prepares the country and the people for national development. No cause-and-effect relationship between media and development can be established, but the media have proved to be an effective variable in *Vision 2020*, constantly highlighting government policy and development concepts of national unity and nationalism. Another key tenet of Modernization,

emphasis on macro-level development policy and centralized planning by the national government, is useful in a society threatened by ethnic diversity and cultural differences. Rather than undo these distinctions, the national government focuses on awareness and acceptance of diversity, promoting the good of the country over the good of the group or individual. If the emphasis was instead on micro-level development, the government would risk the loss of unity to communalism.

The Self-development paradigm has failed to topple Modernization. However, one aspect of Modernization that is not realized in Malaysia's development policy is literacy training. *Vision 2020* commends education and training for their role in human resource development, but the government relies on the formal educational system to provide for all basic literacy training. The dominant paradigm recognizes the need for basic skills to support a productive and qualified workforce, but the concept of systematic adult basic literacy education is overlooked in favor of formal education. Developing countries have had to choose from antithetical models of national development. But models are ideal types that rarely function according to expectation. Malaysia has modified the Modernization model to fit its unique needs and wants.

IMPLICATIONS OF THE FINDINGS

The overriding question raised by this study is not "Can these technologies be used in Malaysia?" but "Should these technologies be used in Malaysia?" The government and adult educators of Malaysia must consider not only the advantages, but also two disadvantages of advanced media technology as an adult education delivery system before implementing satellite link-ups and computers. First, the country would have to be willing to invest money in hardware throughout the country, not just in urban areas, if the goal is to equalize educational opportunities. Second, these technologies would require an effective infrastructure for power supply, particularly in rural areas, to improve telephone and electricity availability.

The implications for both media and education, particularly for the potential use of media technology in adult education, are phenomenal

and worthy of consideration within the *Vision 2020* context. The foremost question is: "Would the implementation of media technology in adult education enhance the national development policy of Malaysia?" That question will be addressed within two contexts: implications for adult education teachers and administrators and implications for adult education policymakers.

Implications for Educators and Administrators

The history of education policy in Malaysia illustrates its perceived power as a change agent in personal, social and political issues. The curriculum of the national schools of Malaysia was implemented to eradicate communalism and social distance among various ethnic and religious groups by changing the attitudes of individuals. Adults were to be re-educated toward this same goal, with the emphasis of nonformal adult education focusing on productivity, entrepreneurship and democratic principles. Most academicians view media technology as a potential tool for reaching audiences otherwise not accessible by traditional methods. If Malaysia should choose to adopt mediated or media-enhanced adult education strategies, the possible implications for adult educators and administrators are:

1. Educators and administrators would need to conduct a comprehensive review of the expected functions of adult education in Malaysia. Included in that review should be an examination of how adult education, whether literacy or functional competency training, affects the individual, his or her family, and society. If Malaysia is going to pursue a life-long learning strategy, then the major thrust of adult education might be refocused from its impact on society to its impact on the individual, keeping in mind that adults who learn are more likely to encourage children and other family members to be involved actively in learning; children of literate adults do better academically than do children of illiterate adults.
2. Adult education formats need to be reviewed and aligned with expected functions of adult education. Format changes will most likely involve more than determining technology input. Flexible time schedules and facilities

will be necessary to meet the needs of working adults, inaccessible rural adults, women (particularly those with small children at home) and handicapped adults. Other format changes might include revamping lesson plans to meet the needs of the adults in the context of the learning process. Rural adults will want more information on agriculture and health than their urban counterparts; urban adults might need basic reading and writing skills and computer training.

3. Adult educators and administrators will experience changes in preparation for planning and teaching according to new technology-enhanced formats. Careful research and review of budget restraints, coupled with exploration of clients' needs, should be conducted before implementing technology. Educators must familiarize themselves with the technology they are expected to use, and the technology their colleagues are using. They must also realize that technology is a potential tool and tutor for adult education, but technology is merely a channel for delivering education.
4. Once certain forms of technology are chosen for specific adult learning formats, administrators and educators need to prepare for changes in delivery systems and adapt lesson plans accordingly. Educators need to consider their audience, their learning needs, and the resources available to meet those needs; only technology that is determined to best fit those three considerations should be implemented. Examples of delivery systems include satellite transmissions, television and radio broadcasts, videotapes, audiocassettes, and computer networking. Each may be used independently or in conjunction with the others.
5. Once in place, media technology is capable of allowing educators in Malaysia to communicate via a computer network, to examine lesson plans of colleagues placed in a central database, to hold video conferences of viable teaching methods, to compare and contrast media-enhanced adult programmes in East Malaysia with those in West Malaysia. Perhaps the most relevant outgrowth of utilizing a centralized network and database system is the increased ability to systematically collect and analyze data pertaining to adult education in

Malaysia. Malaysian educators and administrators would be better able to conduct research in a field considered important to national development.

IMPLICATIONS FOR POLICYMAKERS

Government officials in Malaysia deal not only with questions of how to implement media technology in adult learning situations, but also with the overriding question of whether media technology should be used in providing adult basic and functional literacy courses. The goal of policymakers is to determine whether media technology advances the national development policy, *Vision 2020*. If the government of Malaysia chooses to incorporate media technology for that purpose, the implications for policymakers are:

1. Current attitudes concerning the role of the individual in the learning process, in the national development plan, will need to be reviewed. Distance education via media technology is a monetary investment in the education of adults who, without these new formats, might not have access to adult basic and functional literacy programmes. Policymakers should consider the impact of education on the individual and the impact of that newly-educated adult on society, particularly in the context of national development. Lifelong learning begins with access to education which should be equal to all ethnic groups, women, and rural adults. Policymakers must first decide the value of educating the individual in a culture that emphasizes the good of the group over the good of the individual, and take into account the direct and indirect benefits to society by educating adults using media technology.
2. Once policymakers have determined that media technology in adult education programmes have a positive impact on the national development policy of Malaysia, they should determine the impact these technologies would have on society. The most conspicuous impact on society is a better educated workforce, but at a heavy financial cost. Satellites, computers, hardware, and software have proven cost efficient in the long run, but the initial expenses incurred in im-

plementing technologies in any learning situation may prove prohibitive. Because the set up costs are high, the first reaction may be to implement the technologies only in areas with adequate infrastructure to support them. Such an approach would negate the original purpose of the technologies which is to equalize educational opportunities among all Malaysians.

3. Perhaps the most important issue that policymakers will deal with concerning the issue of media technology in adult education is policy itself. Malaysia is a developing country looking forward to full economic development by the year 2020; current policies reflect a nation-building attitude, particularly those policies regarding human resource development for the purpose of strengthening the workforce. But as Malaysia matures into a fully-developed country, those policies should evolve to reflect the role of individuals in maintaining that status. Four policy content areas need to be reviewed within the framework of full development: (a) focus and functions of adult education, (b) national adult literacy policy, (c) national standards for adult education formats, and (d) funding for research and adult education programs. As it stands, adult education in Malaysia exists mostly to supplement formal education. However, not everyone has equal access to formal education. They include drop-outs who have little recourse to completing their education, women at home with small children, rural adults, and handicapped individuals. However, should policymakers review the functions of adult education within a lifelong learning context, the focus of adult education would include adults who want access to formal and nonformal learning activities outside the existing formal education system. To regulate these activities fairly and consistently, policymakers may choose to adopt a national adult literacy policy so that adult educators and administrators can follow national guidelines. These guidelines could be part of a revised national standard for adult education in Malaysia, taking into consideration the role, if any, of media technology.

CONCLUSION

Malaysia is proving itself a nation among nations in a technologically-advanced world, and is adapting to that technology in government, business and formal education systems. Media and education, two arms of the Malaysian national government linked together for the dual purpose of strength and unity, propagate the government's development policy, *Vision 2020*. But as Malaysia stands at the crossroads of development, it must choose either to continue with a formal education system that excludes access to many adults, or it may choose to forge a national policy regarding adult literacy and the role that adult education plays in national development.

As for now, adult basic education is not a priority in Malaysia, but there are diverse nonformal educational opportunities for adults, many of them mediated. Literacy in Malaysia is defined as the ability to read and write and is often equated with schooling. Government officials recognize the importance of education to national development, and KEMAS is actively engaged in functional literacy activities for adults in rural Malaysia. Although Malaysia is technologically-advanced and has distance education capabilities, media technology plays a minor role in adult education activities. Malaysian adults have access to nonformal mediated educational opportunities, but the distance education facilities are reserved for university use.

The findings of this study suggest further research concerning the potential use of media technology in adult basic and functional literacy programs in Malaysia. Further research must answer this question: "How does media technology affect disparities in educational opportunities?" In other words, would distance learning formats for adult basic and functional literacy programs actually provide equal access to learning? Further research should concentrate also on the diffusion of technology in Malaysia: "Is technology use innovative and equitable, or is technology applied only in urban areas for specific groups of people?"

Malaysia, though still defined as a developing country, endeavors to outgrow this current definition. It is an aggressively progressive nation in business and politics, but conventional in social and cultural values. Cities flaunt industrialization and urbanization; villages hold steadfastly to cus-

oms and rituals. Malaysia has conceptualized and formulated a development plan that fits the needs of their country and their cultures, taking principle elements from the Modernization paradigm and combining them with several elements of the Self-development/participatory model. While the role of *Vision 2020* is to protect cultural diversity during national development, the role of education is to promote understanding of that diversity. The next step, then, is to define the role of media technology in national development in protecting and promoting these diverse Malaysian cultures through adult education.

ACKNOWLEDGEMENT

The researcher is grateful to the James M. Cox Jr Center for International Mass Communication Training and Research, Grady College of Journalism and Mass Communication, University of Georgia, Athens, U.S.A for funding this study.

REFERENCES

- BLUME, W. T. and P SCHELLER, 1984. *Toward International Tele-education*. Boulder: Westview Press.
- CHARTERS, A. N. 1981. *Comparing Adult Education Worldwide*. San Francisco: Jossey-Bass.
- CRONBACH, L. 1975. Beyond the two disciplines of scientific psychology, *American Psychologist*, **30**:116-127.
- DARKENWALD, G. and S. MERRIAM, 1982. *Adult Education: Foundations of Practice*. New York: Harper and Row.
- EWERT, D. M. 1990. Adult education and international development. In *Handbook of Adult and Continuing Education*. Merriam and Cunningham eds. San Francisco: Jossey-Bass.
- FAIR, J. E. 1989. 29 years of theory and research on media and development: the dominant paradigm impact. *Gazette*. **2**:129-150.
- GOETZE, J. P. and M. D. LE COMPTE, 1984. *Ethnography and Qualitative Design in Educational Research*. San Diego: Academic Press, Inc.
- GRAFF, H. J. 1984. Whither the history of literacy? The future of the past. In *The history of Literacy, Communication*. **11**(1):5-22.
- GUBA, E. and Y. LINCOLN, 1981. *Effective Evaluation*. San Francisco: Jossey-Bass.

- JIZAWA, S. 1990. Responding to the challenge. *The UNESCO Courier* (15).
- KNOWLES, M. 1977. *A history of the Adult Education Movement in the United States*. New York: Krieger.
- LAHIRI, I. 198. *The Satellite Instrumental TV Experiment in India*. Ph. D dissertation. The University of Georgia.
- LINCOLN, Y. S. 1990. The making of a constructivist: A remembrance of transformations past. In E. *The Paradigm Dialog*. G Guba ed Newbury Park: Sage Publications.
- MERRIAM, S. B. 1990. *Case Study Research in Education: a Qualitative Approach*. San Francisco: Jossey-Bass.
- MOWLANA, H. and L.J. WILSON, 1988. Communication technology and development. UNESCO, No. 101.
- NERONE, J. 1988. Introduction In *The History of Literacy*. *Communication* 11(1):1-4.
- PATTON, M. Q. 1990. *Qualitative Evaluation and Research Methods*. 2nd ed. Newbury Park: Sage Publications.
- ROGERS, E. 1976. *Communication and Development: Critical Perspectives*. Beverly Hills: Sage Publications.
- SCHELLER, R. 1983. *News Flows in Asia: a Study of 10 Countries*. Singapore: Parklane.
- VALENTINE, T. 1986. Issues central to the definition of adult functional literacy. Paper prepared for the Office of Higher Education and Adult Learning of the Office of Educational Research and Improvement of the United States Department of Education.

INTERVIEWS

- January 13 1992
Government official
Ministry of Community and Rural Development
(KEMAS)
- January 16 1992
Lecturer
University Malaya
- January 17 1992
Administrator
University Kebangsaan Malaysia
- January 23 1992
Representative
Association of Women Lawyers
- January 28 1992
Government official
Educational Planning and Research
Ministry of Education
- January 29 1992
Government official
Ministry of Information
- February 1 1992
Administrator (interview a)
Centre for Off-Campus Studies
Universiti Sains Malaysia
- Administrator (interview b)
Centre for Off-Campus Studies
Universiti Sains Malaysia
- February 10 1992
Lecturer (interview a)
Universiti Malaya
- Extension worker (interview b)
Universiti Pertanian Malaysia
- Extension Worker (interview c)
Universiti Pertanian Malaysia

(Received 21 October 1993)

Achievement Motivation Training for University Students : Effects on Affective and Cognitive Achievement Motivation.*

HABIBAH ELIAS

Department of Education
Universiti Pertanian Malaysia
43400 UPM Serdang, Selangor Darul Ehsan, Malaysia.
and

WAN RAFAEI ABDUL RAHMAN

Centre for Graduate Studies,
Universiti Kebangsaan Malaysia

Keywords: Achievement Motivation Training, Affective, Cognitive Achievement Motivation

ABSTRAK

Objektif kajian ini ialah untuk mengkaji keberkesanan latihan motivasi pencapaian dalam meningkatkan aras motivasi pencapaian pelajar-pelajar universiti. Berasaskan teori motivasi pencapaian oleh McClelland (1961) dan teori atribusi oleh Weiner (1974) latihan motivasi pencapaian telah direkabentuk. Ia merangkumi pengajaran motivasi pencapaian, kajian sendiri, perancangan, penetapan matlamat dan permainan motivasi. Subjek terdiri daripada 188 pelajar tahun dua dan tiga aliran sastera dari sebuah universiti tempatan. Mereka dipilih berdasarkan markat motivasi pencapaian yang diukur dengan Ujian Peramatan Tematik. Subjek yang dipilih (N=188) dibahagikan secara rawak kepada salah satu daripada tiga kumpulan. Kumpulan motivasi pencapaian diberi latihan motivasi pencapaian, kumpulan perbincangan diberi rawatan alternatif dan kumpulan kawalan tidak diberi rawatan. Keputusan menunjukkan bahawa kumpulan yang diberi latihan motivasi pencapaian mengalami peningkatan yang signifikan dalam motivasi pencapaian afektif ($F(2,164) = 44.4, k<.05$) berbanding dengan kumpulan perbincangan dan kumpulan kawalan. Kumpulan motivasi pencapaian juga menunjukkan peningkatan yang signifikan dalam aspek kognitif motivasi pencapaian ($F(2,155) = 16.56, k<.05$) berbanding dengan kumpulan perbincangan dan kumpulan kawalan.

ABSTRAK

This study investigated the effectiveness of an achievement motivation training in increasing the level of achievement motivation of university students. An achievement motivation training was designed to include the teaching of achievement motivation, self-study, planning and goal-setting and motivational games. The subjects were 188 second and third year Arts students from a local university selected on their achievement motivation scores measured by the Thematic Apperception Test. The subjects (N=188) were randomly assigned to one of three groups. The achievement motivation group was given the achievement motivation training, the discussion group was given an alternative treatment and the control group was not given any treatment. The results indicated that the group which received the achievement motivation training demonstrated a significant increase in the affective aspect of achievement motivation ($p < .05$) compared to the discussion group and the control group. The achievement motivation group also showed a significant increase in the cognitive aspect of achievement motivation ($p < .05$) compared to the discussion group and the control group.

INTRODUCTION

Achievement Motivation was defined by Murray (1938) as the desire or the tendency to do well or to do better than others. The ability to solve problems, to achieve a high standard of work, the ability to do something unique are examples of achievement motivated behaviour. There are two

approaches to the study of achievement motivation namely the affective approach as advocated by McClelland (1961) and the cognitive approach as proposed by Weiner (1974). The affective approach views achievement motivation as the ability to experience pride from a successful competition with some standards of excellence. It is this

* This study is part of the first author's Doctoral Thesis submitted to the Department of Psychology, Universiti Kebangsaan Malaysia, 1991.

pride that drives individuals to strive hard to achieve achievement goals.

Achievement motivation as viewed by the cognitive model is the capacity or the ability to think and to interpret the causes of success or failure in achievement related tasks. In an achievement related context, the causes perceived as most responsible for success and failure are ability, effort, task difficulty and luck (Weiner 1979).

Previous studies have shown positive correlations between the affective and cognitive aspects of achievement motivation. For instance, individuals with high achievement motivation as measured by the affective approach (TAT) perceived themselves as more able than those with low achievement motivation. High achievement motivated individuals attributed their success to their high ability, whereas those with low achievement motivation attributed their success to luck or other external factors. The high achievement motivated individuals also attributed their success to their expended effort (Weiner 1979).

The problem of students not being motivated or students with low level of motivation is very common even at the university level (Halim 1984, Marsh 1984).

McClelland (1965) proposed that motivation can be changed even at the adult stage. Empirical studies have shown that through training, adults can learn certain skills which help them to achieve their personal goals. For example, an achievement motivation training developed by Arnoff and Litwin (1971) in USA indicated a positive increase in achievement motivation of a group of entrepreneurs. A follow up study showed that their business activities increased after the training. In another study, Durand (1983) found a positive increase in achievement motivation of entrepreneurs after an achievement motivation training. There was a positive correlation between their achievement motivation scores and their business activities after two years of training.

Purpose of the Study

The purpose of this research was to investigate experimentally the feasibility of increasing motivation in a group of university students with a low level of achievement motivation.

According to McClelland (1965) a successful program of motivation change comprises four elements:

- a) conceptualization of the motive
- b) self-study in relation to the motive
- c) planning and goal setting
- d) group support

In achievement motivation training, participants are given guidance on how to think, talk and act like a person with high achievement and then examine carefully the extent to which they want to plan their lives in the immediate future (McClelland 1972).

McClelland (1961) contends that an individual's thoughts are related to his actions. Verbalising in a particular motive such as achievement, affiliation or power has a tendency to increase the frequency of thoughts on that motive. If a particular motive gets more attention in the form of discussion, the network of associations formed in the mind will have the effect of facilitating learning.

Previous studies have shown that among businessmen, achievement motivation training based on McClelland's program was effective in increasing the business activities of participants (Arnoff and Litwin 1971 and Durand 1983). Among students, the achievement motivation training has been shown to be effective in increasing the level of achievement motivation and achievement in certain school subjects (Burris 1958, Kolb 1965, de Charms 1972 and Ryals 1975).

In this study we developed a training program for university students based on McClelland's model, using materials developed by Alschuler (1973, and McClelland and Steel (1982). To determine the specific effects of the program on the cognitive and affective aspects of achievement motivation, the outcome of this program was compared to another treatment given to the discussion group. A no-treatment control group was also included to provide further comparison of the two treatments.

METHODOLOGY

Research Design

The study was based on pretest-posttest control group design as suggested by Campbell and Stanley (1963). The design of the study is shown in Fig. 1.

R	0 ₁	X ₁	0 ₂
R	0 ₃	X ₂	0 ₄
R	0 ₅		0 ₆

Key

- 0₁₋₆ – Observation (Pretest and Posttest)
 X₁ – Treatment for N Achievement Group
 X₂ – Treatment for Discussion Group
 R – Randomization

*Fig. 1 Research Design***Subjects**

Subjects were 188 second and third year Arts Students from a local university. Among the subjects were 100 Malays and 88 Chinese. They were among 428 students who took the Thematic Apperception Test (TAT) earlier to determine their achievement motivation level. Those with low achievement motivation (lowest 30%) were randomly assigned to one of three groups.

Outcome Measures

Four measures of achievement motivation were used:

- Thematic Apperception Test: a projective measure of achievement motivation using four pictures by McClelland, Atkinson, Clark and Lowell (1953). This is an affective measure of achievement motivation. The TAT had an interscorer correlation of 0.96.
- Motivation Scale: an objective measure of achievement motivation using questionnaires based on situations adapted from 'Guessing Test' by Udai Pareek. This is another measure of affective achievement motivation. The motivation scale recorded an alpha value of .69.
- Locus of Control: The Rotter Internal-External Scale (RIES) was used to measure locus of control, a cognitive aspect of achievement motivation where a lower score indicates a greater sense of internal control. The RIES recorded an alpha value of .78.
- Attribution of Success and Failure: An attribution Scale adapted from the Causal Dimension Scale by Russel (1983) was used to measure attribution of success and failure based on three dimensions namely locus of con-

trol, stability and controllability. This is another measure of cognitive achievement motivation. The attribution scale had an alpha value of .72.

PROCEDURE*Achievement Motivation Training Group*

The Achievement Motivation Training was based on McClelland's (1965) Achievement Motivation Program but was adapted by Alschuler (1973) and Ashton (1986). The original McClelland's Achievement Motivation Training course was conducted over a period of between 20 to 40 hours. The training was reduced to 11 hours by Alschuler (1973) and to 6 hours by Ashton (1986). Due to the practical problems involved in conducting the training program during the semester, the training described in this study was reduced to 9 hours. However, the input variables in the McClelland's model were retained in the shortened course.

The training was conducted by the researcher assisted by two trained research assistants. The achievement motivation training was spread over six sessions and each session took about one hour and thirty minutes. Subjects met twice a week for three weeks. The training was done on campus.

The Achievement Motivation Training input consisted of the following :

- Written exercise on "Who Am I", an activity which guides the subject to analyse himself in terms of his strengths, weaknesses and his goals in life.
- A motivational game and discussion of the results.
- A second motivational game and discussion of the results.
- Admiration ladder, an activity which helps the subject to identify personalities whom he admires and the characteristics of each personality are cited.
- Analysis of the Thematic Apperception Test, an activity which guides the subject to analyse the TAT stories according to the various achievement categories.
- A problem solving activity where subjects are given a problem to solve individually and in a group.

TABLE I
Means and standard deviations for the Three Groups

variable	Groups	N	Means		Std. deviations		b-a
			pre (a)	post (b)	pre	post	
Achievement	N Ach	59	3.83	11.02	1.65	3.89	7.19
Motivation	Discussion	57	4.02	6.24	1.78	2.30	2.22
(TAT)	Control	72	4.04	6.25	2.01	2.67	2.21
Achievement	N Ach	59	6.16	13.12	2.59	2.63	6.96
Motivation	Discussion	57	6.68	11.89	2.23	2.78	5.21
(MOT)	Control	72	7.14	11.72	2.47	2.62	4.58
Locus of	N Ach	59	10.2	6.60	3.67	3.66	-3.69
Control	Discussion	57	10.5	9.55	3.29	3.85	-0.99
(RIES)	Control	72	9.4	8.90	3.27	3.49	-0.56
Attribution	N Ach	59	66.7	102.90	10.64	15.42	36.16
(ATS)	Discussion	57	68.6	96.93	13.44	17.76	28.26
	Control	72	70.5	97.78	11.57	15.41	27.24

The achievement motivation training laid special emphasis on achievement thinking. According to the achievement motivation theory, how an individual thinks affects, to a certain extent, his future undertakings. Furthermore, the expectations and the motives which surface in one's thinking also affect his future actions. The achievement motivation training program was expected to have a significant outcome in terms of increased achievement motivation and internal locus of control. This hypothesis has been supported by research findings (de Charms 1971, Biaggio 1978, Hosek and Man 1981) which suggest that human motives can be learned or changed through a structured form of training.

Discussion Group

The purpose of the discussion group was to develop positive thinking. Problems for discussion were selected from The Mooney Problem Checklist. The subjects in this group participated in other problem solving activities to develop lateral thinking. The purpose of incorporating the discussion group in the experiment was to see if there was any Hawthorne effect in the study. If the outcome of the training program was influenced by the specific techniques used, then it could be concluded that the program was effective. However, if the effects were about equal or less than those in the other forms of treatment, then the Hawthorne effect would have been apparent.

The discussion group, therefore, provided the data to ascertain that there was no Hawthorne effect.

To avoid interactions between the groups, the training was conducted simultaneously for the different groups.

No Treatment Group

This group was subject to the pretest and the posttest at the same time as the other groups but had no other intervening treatment. This control group enabled the researcher to compare the effects of the treatments received by the other two groups.

RESULTS

Achievement Motivation

The Results for TAT

The means and standard deviations for achievement motivation as measured by the Thematic Apperception Test (TAT) are presented in Table 1.

The posttest means indicated an overall increase in the level of achievement motivation: the group which received the achievement motivation training showed the highest increase (Table 1)

The achievement motivation data were subjected to an analysis of covariance to determine if the observed differences were significant. ANCOVA results indicated that the mean differ-

ences were significant ($F(2, 121) = 45.11, p < .05$). Further comparison of the means using the Student Newman Keuls Test showed that the achievement motivation group was superior to the discussion group and the control group in the level of motivation. However, the mean difference in the discussion group was not significantly different from that in the control group.

An interesting finding in the n-achievement group is the significant difference between the achievement motivation of the two ethnic groups under study ($F(1,33) = 6.18, p < .05$). Comparison of the means showed that the Chinese students had higher achievement motivation than the Malay students after the training.

The Results for Motivation Scale

The means and standard deviations for achievement motivation as measured by the Motivation Scale (MOT) are also presented in Table 1. As expected, the post-test means indicated an increase in the level of achievement motivation and the n-achievement group recorded the highest score. An analysis of covariance on the achievement motivation data indicated that there was a significant difference in the means for the treatments ($F(2,124) = 4.31, p < .05$). Further comparison of the means using the Student Newman Keuls Test showed that the n-achievement group was superior to the discussion group and the control group in terms of the increase in achievement motivation. However, there was no significant difference between the discussion group and the control group. The present results confirm earlier findings that achievement motivation training tends to increase the level of achievement motivation.

The Results for Locus of Control

The means and standard deviations for Locus of control as measured by the Rotter I-E Scale (RIES) are presented in Table 1. The posttest scores showed a decrease, indicating an increase in internal control. The n-achievement group had the highest internal control compared to the other two groups. Analysis of covariance on the locus of control data indicated a significant difference in the means for the treatments ($F(2,120) = 9.01, p < .05$). Further comparison of the means showed that the n-achievement group was more internally

oriented than the discussion group and the control group. However, there was no significant difference between the discussion group and the control group.

The Results for Attribution of Success and Failure

The means and standard deviations for attribution of success and failure (ATS) are presented in Table 1.

Analysis of covariance on the attribution data indicated that there was no significant difference in the means for the treatments. The results did not support earlier findings on internal control; this could be due to the different aspects covered in the measurement. The Rotter I-E Scale (RIES) focusses on the locus of control only, whereas the attribution scale covers a wider scope; that is, locus of control, stability and controllability in the attribution process. The present results suggest that further research is needed to study the effects of the achievement motivation training on the attribution process.

DISCUSSION

The ability of the achievement motivation training program to increase the level of achievement motivation suggests that the McClelland approach to motivation change is a practical and viable model for developing change programs with university students. This approach to motivation change should be of value to educational psychologists especially for the purpose of affecting a wide range of motives and attitudes.

Our results support the findings of earlier studies done by de Charms (1971), Biaggio (1978) and Hosek and Man (1981). The specific activities and procedures of the structured and directed McClelland approach were more effective than the activities given to the discussion group in increasing the level of achievement motivation and the feelings of internal control. The achievement motivation training input laid special emphasis on achievement thinking, competition, excellence, challenges, self-study, planning and decision making. These training input characteristics may have contributed to the change in achievement motivation and locus of control of the subjects.

The Chinese students appeared to have benefited more from the achievement motivation training than the Malay students. This could be

due partly to their way of life and childhood upbringing which are closely related to the business world. They tend to be more familiar with the training input characteristics such as competition, excellence, planning and decision making, achievement thinking and challenges in life. Past studies have shown that in a situation without training, Chinese students have higher achievement motivation than the Malays (Zainab and Kwok 1970, Wan Rafaei 1980). Winterbottom (1958) and Siti Rahayu (1984) have indicated that certain child rearing practices, for instance, encouraging independence at an early age can contribute to the development of high achievement motivation among children. The achievement motivation training in this study has a similar objective namely, to instill in the participants the behaviour characteristics which are conducive to the development of high achievement motivation.

The fact that the Malay subjects in the n-achievement group did not show a similar increase in achievement motivation could be due to their different cultural values and practices (Taib 1989). Their cultural values may be different from those that were emphasised in the training.

The training also succeeded in increasing the internal locus of control. The results support other findings e.g. (de Charms 1971, Weiner 1979, 1986, Craske 1985, Ashton 1986) that individuals with high achievement motivation are more internally controlled.

After training, the Chinese subjects showed more internal locus of control compared to their Malay counterparts. The result supports Cunningham's (1983) findings that there are differences in the effects of training according to ethnic group.

CONCLUSIONS

The achievement motivation training succeeded in increasing the achievement motivation of university students. After the training, subjects showed more frequent achievement thinking such as the desire to achieve excellence, the need to progress, positive expectations and preference for challenging tasks. The training also increased their internal locus of control. They believe that factors which are related to themselves such as their ability and effort can affect their life experi-

ences and their behaviour outcomes. They also believe that factors which are beyond their control such as task difficulty and luck do not play an important role in determining their life experiences or behaviour outcomes.

This study was successful in designing and testing an achievement motivation training module for university students. It is possible that the module used in this study may prove useful to those interested in enhancing achievement motivation and students' internal locus of control.

REFERENCES

- ABDUL HALIM OTHMAN, 1984. Sikap Pelajar-Pelajar Bumiputra terhadap Prestasi Akademik. Kertas kerja yang dibentangkan di Persidangan Timbalan-Timbalan Naib Canselor, Universiti-Universiti Malaysia di UPM Serdang (24 November).
- ALSCHULER, A. 1973. Motivating adolescents achievement. *Urban Education* 7:4.
- ARNOFF, J. and C.H. LITWIN. 1971 Achievement Motivation Training and Executive Advancement, *J of Applied Behavioral Science* 7:215-228.
- ASHTON, P. 1986 Motivation Training and Personal Control: a Comparison of three Intervention Strategies. *Education* 106:454-61.
- BIAGGIO, A.M.B. 1978. Achievement Motivation of Brazilian Students. *International J of Intercultural Relations* 2(2):186-195.
- BURRIS, R.W. 1958. Effects of Counselling on Achievement Motivation. Ph. D dissertation. University of Indiana, Bloomington.
- CAMPBELL, D.T., and J.C. STANLEY. 1963. *Experimental and Quasi-experimental Designs for Research*. Chicago:Rand McNally.
- CRASKE, M.L. 1985. Improving persistence through observational learning and attribution retraining, *British J of Educ Psych.* 55:138-147.
- CUNNINGHAM, D.B.1983. The effect of situational training on the Achievement Motivation of low socio-economic minority college females : An Exploratory Longitudinal Study. DAL, Adelphi University.
- de Charms, R. 1971. From Pawns to Origins: Toward Self-Motivation. In *Psychology and Educational Practices*, ed. G.S. Lesser, p. 380-407. Chicago: Scot, Foresman.

- de Charms, R. 1972. Personal causation training in the Schools. *J of Applied Soc Psych.* 2:95-113.
- DURAND, D.E. 1983. Modified achievement motivation training: A longitudinal study of effects of a condensed training design for entrepreneurs. *Psychological Reports.* 52:907-911.
- HOSEK, V. and F. MAN. 1981. Achievement Motivation Training for the Teachers. *International J of Sports Psych.* 12:260-274.
- KOLB, D.A. 1965. Achievement motivation training for underachieving high school boys. *J of Personality and Soc Psych.* 2:783-792.
- MARSH, H.W. 1984. The Relationship between dimensions of self attributions and dimensions of self-concept. *Journal of Educational Psychology* 76:3-32.
- MCCLELLAND, D.C. 1963. *The Achieving Society*, Princeton, N.J: Van Nostrand.
- MCCLELLAND, D.C. 1972. What is the effect of achievement training in the schools? *Teachers College Records* 74:129-45.
- MCCLELLAND, D.C., J.W. ATKINSON, R.A. CLARK and E.L. LOWELL. 1953. *The Achievement Motive*. New York: Appleton-Century Crofts.
- MCCLELLAND D.C. and R.S. STEELE. (1982). *Motivation Workshops*. New York: General Learning Press.
- MCCLELLAND, D.C. and D.G. WINTER. 1969. *Motivating Economic Achievement*. New York. The Free Press.
- MOHD. TAIB OSMAN, 1989. Masyarakat Melayu : Struktur, Organisasi dan Manifestasi, Kuala Lumpur: Dewan Bahasa dan Pustaka.
- MURRAY, H.A. 1938. *Explorations in Personality*. New York: Oxford University Press.
- RUSSEL, D. 1982. The causal dimension scale: A measure of how individuals perceive causes. *J of Personality and Soc Psych.* 42:1137-1145.
- RYALS, K. 1975. Achievement Motivation for low achieving 8th and 10th grade boys, *J of Experimental Education* 44(2):47-51.
- SITI RAHAYU HADITONO. 1984. Achievement motivation, parents' educational level and child rearing practices in four occupational groups in Indonesia. Third Asian Workshop on Child and Adolescent Development. 'Preparation for Adulthood.
- WAN RAFAEI ABDUL RAHMAN. 1980. Peranan motivasi pencapaian dalam pembentukan usahawan - Satu kajian di kalangan murid-murid sekolah di Malaysia dan United Kingdom. Kertas Seminar dalam Seminar Psikologi dan Masyarakat.
- WEINER, B. 1974a. *Cognitive Views of Human Motivation*. New York: Academic Press, Inc.
- WEINER, B. 1974b. *Achievement Motivation and Attribution Theory*. Morristown, N.J.: General Learning Press.
- WEINER, B. 1979. A theory of motivation for some classroom experiences, *J of Educ Psych.* 71:3-25.
- WEINER, B. 1986. *An Attributional Theory of Motivation and Emotion*. New York: Springer-Verlag.
- WINTERBOTTOM, M.R. 1958. The Relation of Childhood Training in Independence. Ph.D dissertation, University of Michigan.
- ZAINAB RAHIM and KWOK, L.C. 1970. Malay and Chinese Child Rearing Patterns: A Comparative Study. Kertas dalam Perhubungan Etnik, University of Singapore.

(Received 25 August 1992)

Resettlement and Nutritional Implications: the Case of Orang Asli in Regroupment Schemes

KHOR GEOK LIN

Department of Nutrition and Community Health
Faculty of Human Ecology
Universiti Pertanian Malaysia
43400 UPM Serdang, Selangor Darul Ehsan, Malaysia.

Keywords: Orang Asli, regroupment schemes, nutritional status, subsistence cropping, cash cropping

ABSTRAK

Sejak pertengahan tahun 1970an, semakin ramai Orang Asli dari pedalaman telah dipindahkan ke kawasan khas yang dinamakan Rancangan Pengumpulan Semula (RPS). Di skim RPS, mereka diperkenalkan kepada tanaman komersial termasuk getah dan kelapa sawit. Ini melibatkan perubahan cara hidup yang ketara bagi Orang Asli yang lebih biasa dengan tanaman makanan, hasil memburu dan mendapatkan makanan hutan untuk penggunaan isirumah. Lepas 15 tahun RPS dilancarkan, status pemakanan kanak-kanak Orang Asli di RPS boleh diuraikan sebagai rendah kerana didapati prevalens yang sederhana hingga tinggi bagi masalah kekurangan berat, malnutrisi akut dan kronik dikalangan kanak-kanak. Pengambilan kalori dan beberapa nutrien utama adalah pada paras defisiensi. Kertas kerja ini juga menunjukkan imek negatif terhadap pengumpulan semula di negara lain. Didapati andaian bahawa penglibatan dalam tanaman komersial akan menghasilkan pertambahan pendapatan, yang akan memberikan lebih wang kepada isirumah untuk membeli makanan, dan ini seterusnya akan memperbaiki status pemakanan. Hasil daripada kajian telah menunjukkan bahawa perkara ini yang berkaitan satu sama lain tidak semestinya berlaku. Sebenarnya, pengumpulan melibatkan pindahan budaya dan perubahan kepada cara hidup. Perubahan ketara tersebut mungkin tidak dapat di atasi dengan pemberian kemudahan fizikal dan insentif ekonomi sahaja.

ABSTRACT

Since the mid-1970s, increasingly more Orang Asli from the interior have been relocated into regroupment schemes, where they are introduced to the cultivation of cash crops including rubber and oil palm. This involves a major change to their socio-economic lifestyle, in having to switch from subsistence cropping coupled with hunting-gathering activity to being drawn into the market economy. Some 15 years after relocation, the nutritional status of Orang Asli children in regroupment schemes can be described as poor with a moderate to high prevalence of underweight, acute and chronic malnutrition. Their dietary intakes are deficient in calories and several major nutrients. This article also presents findings of the deleterious impact of resettlement on nutritional status experienced in other countries. There exists an over-simplified assumption that introduction to cash cropping will lead to increased income, which will provide more money for food, and in turn result in improvement in nutritional status. Evidence involving indigenous groups and peasant farmers is provided to show that this linkage does not necessarily emanate. In reality, relocation entails cultural uprooting and lifestyle changes which may not be overcome by the provision of physical facilities and economic incentives only.

INTRODUCTION

There exists a current of opinion that an effective way of improving the nutritional status of a community is by means of bettering the economic status of the people. The implicit assumption here is that increased income will provide more money for food which, in turn, will reduce the risk of hunger and malnutrition. There is no doubt that income plays a central role in affecting nutritional status. Its significance is under-

scored by the observation that "even where cultural blocks (such as local beliefs and practices) to good dietary practice are most strongly in evidence, it is rare to find undernutrition among the wealthiest segments of a population" (Fleuret and Fleuret 1980). On the other hand, a low income often has a strong correlation with poor nutritional status (Harrell *et al.* 1989). This has led to an emphasis on increasing income as a necessary prelude to improving nutritional sta-

tus. For peasant farmers and subsistence cultivators, this is often translated to mean shifting to cash cropping or commercial agriculture.

It is contentious whether the introduction of commercial agriculture will bring about an improvement in nutritional status. The income and nutritional outcomes of changes from subsistence to commercialized crop production may be time- and place-specific, thereby giving rise to apparently conflicting reports (Immink and Alarcon 1991). While there are studies that have reported positive effects on household income and nutritional status of children as a consequence of cash cropping (von Braun, Hotchkiss and Immink 1989; von Braun, Puetz and Webb 1989), there are also reports of agricultural development projects which not only had no impact on nutrition, but even worse, have led to a deterioration in the nutritional status of those at risk (Smith 1986; Harper 1986).

In Bouis and Haddad's study (1990) on the nutritional outcomes of the conversion from corn smallholdings to large sugarcane farms in Mindanao, the Philippines, it was found that export cropping had brought about an increase in household income. However, it was not accompanied by improvement in nutritional status of the sugar-household preschoolers. The authors observed a high prevalence of morbidity among these children and this was attributed to the unsanitary conditions in the farms. In reality, while raising household income is a necessary condition, it is not sufficient by itself to improve nutritional status.

Many studies have shown that when income is increased, expenditures on nonfood goods and services occur as a priority over expenditures on food items. (Immink and Alarcon 1991). In the study by Kennedy (1989) in Kenya, increased income obtained by the sugarcane producing households was spent on housing and education. While these may serve important household needs in the long run, the immediate impact of economic gains was not reflected in the health and nutritional status of the children.

This article focuses on the specific situation on Orang Asli (indigenous people in Peninsular Malaysia) from the interior, a significant proportion of whom are being resettled into regroupment schemes ("Rancangan Pengumpulan Semula") or RPS settlements. The

general aim of the regroupment plan is to improve the socio-economic status of the settlers through organised economic activities including cash cropping. It has been more than 15 years since the first RPS settlement was set up and today there are over a dozen such settlements in Peninsular Malaysia. The concern of this article is directed at the nutritional status of the RPS settlers, in particular that of the children. Has the change from a subsistence way of life to one dependent on cash cropping brought about a satisfactory nutritional status among the RPS children? This article also draws on the experience of other countries on the impact of resettlement on health and nutritional status of the settlers.

Concept and Implementation of Regroupment Schemes

The first time Orang Asli were subjected to resettlement was in 1951 when the colonial power forced about 25,000 Orang Asli from the interior into hastily prepared camps in an attempt to remove them from the influence of communists terrorists. However, many Orang Asli died as they were unaccustomed to the heat of the lowlands, the abrupt changes in diet, exposure to diseases and from mental torment (Polunin 1953). After the end of the Malayan Emergency in 1960, the Department of Orang Asli Affairs ("Jabatan Hal Ehwal Orang Asli") or JHEOA adopted a more benign attitude by allowing the Orang Asli to lead their traditional way of life in the interior and providing them with clinics, schools and other facilities.

In the mid-1970s with increasing communist incursions from South Thailand, the security of Orang Asli in the interior was again threatened. A comprehensive plan was drawn up with the twin aims of providing security and improving the socio-economic conditions of Orang Asli in the interior. This was in line with the overall development strategy of JHEOA to bring about development of Orang Asli through integration and assimilation into the mainstream of Malaysian society.

The socio-economic objectives of the RPS plan include developing a healthy community as outlined below (JHEOA 1992a):

- a) to modernise the lifestyle of interior Orang Asli.
- b) to create a community that is healthy and fit.

- c) to instil confidence in Orang Asli with regard to the education for their children and skill development for themselves.
- d) to create a class of young Orang Asli entrepreneurs.
- e) to encourage growth centres through management of the traditional villages and land reservations of Orang Asli.
- f) to upgrade cultural and art works of Orang Asli for tourism.
- g) to eradicate or reduce poverty among Orang Asli.
- h) to identify an effective and well-coordinated administration for the development of the Orang Asli community.

The original regroupment plan envisaged a total of 25 RPS settlements to regroup approximately 23,000 Orang Asli living in the interior along the Main Range mountains ("Kawasan Titiwangsa"), stretching from the border of Malaysia/Thailand to the boundary of Perak/Selangor (Federal Town and Country Planning Report 1979). The plan recommended that, as far as possible, all Orang Asli villages affected would be regrouped within their traditional areas, and not separated into aggregates of individual villages.

In practice, regroupment of Orang Asli into RPS schemes has been carried out by two approaches. One approach is by relocating several villages to designated RPS settlements, as was done when the Temenggor Dam in northern Perak was constructed. The Orang Asli who were affected (Temiar and Jahut subtribes mainly) were given the choice to move to one of three resettlements namely, RPS Fort Kemar, RPS Air Banun or RPS Air Dala. The second approach, which is also more commonly practiced, is by grouping neighbouring villages into a single administrative settlement within their existing location.

Commencing with the Third Malaysia Plan (1976-1979), through the Fourth and Fifth Malaysia Plans (1981-1985 and 1986-1990 respectively), ten RPS schemes were implemented, and seven additional RPS projects were approved under the Sixth Malaysia Plan (1991-1995). The first ten settlements were set up at a total cost of RM64.5 million (JHEO 1992b). The high cost involved is largely due to the fact that many of these

RPS settlements are located in the interior of the country, and forest land had to be cleared. In terms of the number of Orang Asli relocated, about 1,999 families or 9,395 persons were settled in the ten RPS schemes set up in the 1980s. By 1993, it was estimated that a total of 24,567 Orang Asli, comprising 7,390 in Perak, 3,409 in Kelantan and 13,768 in Pahang were living in RPS schemes.

The JHEOA plays a central role in the development of the regroupment schemes assisted by several government agencies, including the Departments of Agriculture, Surveys and National Mapping, Land and Mines, Rural and Town Planning and Public Works, the Federal Land Development Authority (FELDA), and the Federal Land Consolidation and Rehabilitation Authority (FELCRA). The "FELDA model" of land development is adopted for the setting up of the RPS schemes. In this model, FELDA clears the forest land, provides the basic infrastructure (such as roads, electricity and water supply), builds the houses, offices, schools and clinics, and plants the tree crops for the settlers. When the crops are about to mature, the settlers are brought into the settlement.

According to the RPS plan, each family is given the right to work on between 1.6 - 2.4 hectares of land for rubber or oil palm cultivation, and 0.8 hectare for fruit trees. The Orang Asli do not own the land which is administered as an Orang Asli reserve. While waiting for the rubber or oil palm to mature for harvesting, each family is given a monthly cash subsidy of RM50.00. The RPS plan also recommended introducing cottage agro- and forest-based industries, social development activities aimed at instilling a more dynamic work habit and greater community cooperation among the RPS settlers.

In reality, development in RPS schemes has been slow even in the provision of the basic facilities. For example, in RPS Air Banun, 14 years after its establishment, only 15 housing units had been built for a total population of 266 families (Itam Wali 1993). Most of them had to build their own houses in the traditional manner. As for agricultural activities, two projects have been attempted so far. The first was an orchard ("dusun") project which failed, as there was no follow-up after a contractor was paid to clear 117 hectare of forest land; and the other project in-

volved planting of rubber in 1993; this means that there will be no income for the families involved until 1999.

Health and Nutritional Status of RPS Orang Asli

There are not many studies which focus on the nutritional status of RPS settlers. One of the earlier studies on the nutritional status of an RPS scheme was undertaken in Fort Kemar in Perak by Khoo (1977). A group of 305 Temiar families who were relocated as a result of the construction of the Temenggor Dam were assessed. Khoo found that the dietary habits of the Temiar had changed drastically after one year of moving into RPS Fort Kemar. Their access to forest plant foods and wildlife had been curtailed substantially as their traditional foraging territory had been taken up by the Temenggor Dam. They had become dependent on commercial and processed foods sold in the supply shops in the settlement. Foods such as sweetened condensed milk, milk powder, sardines, sugar, cooking oil and wheat flour were popular items. Their dietary intakes were found to be inadequate for calories and several nutrients with the exception of vitamin C. The latter nutrient is derived mainly from tapioca roots and leaves. Tapioca which is a hardy plant with abundant roots provides a traditional staple food for Orang Asli. Khoo (1977) also found that a marked proportion of the children under five years of age were underweight (too thin for age) and stunted (too short for age). A high percentage of the female adults was identified to be anaemic due to iron deficiency.

In a more recent study on RPS children, Ismail Noor, Wong and Zawiah Hashim (1988) reported on the nutritional status of Semai children from 13 villages in RPS Betau, Pahang which was established in 1979. Out of 111 children assessed, 52% of the preschoolers were found to be underweight and 60% were stunted. The latter finding implies that these children have been malnourished since the early years of life. The older children aged between seven and ten were also reported to be underweight (27%) and stunted (35%). Their average intakes of calories, niacin, and vitamin A were lower than the levels recommended for Malaysians (Teoh 1975). Nonetheless, vitamin C, calcium, iron, riboflavin and thiamin intakes were adequate. Among the

older children who attended the RPS boarding school, some showed better nutrient intakes than the non-schoolers, because the schoolers received meals in the school. Lunch and dinner usually consisted of rice, sardine, dried fish and some vegetables. Overall, the results indicate the presence of moderate to high levels of underweight, acute and chronic malnutrition amongst the Betau children.

Semai children in RPS Betau were also the subjects of a nutritional assessment in 1992. In this study involving 70 boys and 59 girls of age eight years and below, Massitah Sin (1992) reported a moderate prevalence of underweight (34% among the boys and 32% of the girls), and stunted children (40% of the boys and 37% of the girls). Dietary evaluation of the children showed intakes of calories, calcium, iron, thiamin and niacin below the recommended levels. The low intake of calories by the Semai children reported in this study and by Ismail Noor, Wong and Zawiah (1988) is a matter of particular concern, because fulfilling energy needs for the growing child is vital; otherwise the growth process is retarded. Moreover, it is known that children who are undernourished tend to be less active physically and socially; they may possess a lower concentration span, and could also exhibit lower cognitive competence.

In his study on utilisation of health services in RPS Betau, Sua (1992) reported a rather high prevalence of morbidity among 82 Semai men and women interviewed. He found 62% of them to suffer from acute symptoms during the two weeks prior to his study and 43% had chronic illnesses. Cough and skin diseases were the two most common types of chronic complaints. The Semai blame the dirty river water in which they bathe and wash clothes for their constant skin problems. Their chronic cough could be related to their smoking habit. Sua observed that many of the men and older women were heavy cigarette smokers. Osman *et al.* (1991) had also made a similar finding among Orang Asli in Kuala Pangsoon where about one-quarter of the adults in the community smoked more than 10 cigarettes a day.

No comprehensive nutritional or health studies on the RPS Orang Asli were undertaken prior to their moving into their settlements for com-

parisons to be made with post resettlement evaluation. However, a proximate comparison, based on nutritional studies of interior Orang Asli carried out before the establishment of RPS schemes, is possible.

A number of the studies undertaken in the 1960s and early 1970s reported that Orang Asli children from various sub-tribes living in the interior were in relatively good health. By the use of biochemical and anthropometric criteria, the nutritional status of those children was found to be not significantly different from that of urban children (Bready 1970; Robson *et al.* 1973). These authors attributed the good health to two factors. Firstly, it was suggested that the low population density of the Orang Asli villages helps to reduce the spread of diseases. Secondly, the Orang Asli can be characterised as having omnivorous food habits, meaning that they consume wide ranging types of food items which help to provide nutritional adequacy.

Like other indigenous communities around the world, the Orang Asli traditionally "live naturally with the land", implying that they live in a physical and spiritual harmony with their habitats, as the land provides food, fuel, medicines, housing construction materials, and other resources for their living needs. The diet of the indigenous people were originally based on hunting-fishing-gathering and a wide diversity of animal and plant foods is known to be consumed. For example, the Australian Aborigines, prior to European contact, subsisted on a variety of small mammals, reptiles, birds, fish and other sea food enriched with a wide range of plant foods that included starchy tubers, seeds, fruits and nuts (Brand *et al.* 1983). Likewise, Orang Asli particularly those from the interior, also used to depend on a diversity of wildlife, fish and forest plants for their sustenance (Bolton 1972; Khor 1985). The traditional hunting-fishing-gathering diet is usually not high in fat, as wild animals have a much lower carcass fat than domesticated animals, while forest plant foods offer high fibre and complex carbohydrates (O'Dea 1991). Wild foliage plants serve as important sources of nutrients, notably vitamin A, niacin, calcium, iron and protein (Fleuret 1979).

When the indigenous people take to growing food crops, they often plant a variety of staple

crops that mature at different times during the year, whether they be rice, cassava, sorghum or banana. In this way, their subsistence cultivation and foraging habits go towards meeting the family's dietary needs, except when disturbed by exogenous forces (Fleuret and Fleuret 1980).

The traditional lifestyle of the interior Orang Asli, involving moderate to high level of physical activity and coupled with a diet that is low in fat and refined carbohydrate, is believed to be the main factor for their relatively low levels of serum cholesterol and blood pressure (Burns-Cox *et al.* 1972). Chong and Pang (1978) attested to this finding as they also found the deep forest Orang Asli showed the lowest level of the risk factors for coronary heart disease followed by the forest fringe and periurban groups.

The above-mentioned studies on interior Orang Asli undertaken before the RPS era indicate that the interior Orang Asli, living by their traditional lifestyle, seem to possess good health nutritional status.

It must be pointed out that some recent studies have shown the interior Orang Asli living outside RPS settlements to be in a relatively poor nutritional status (Khor 1988; Osman Ali *et al.* 1991). In the study by Khor (1988) which involved 1,180 Semai children between the ages of one to twelve from non-RPS villages in the periurban to interior areas in Batang Padang district in Perak, it was found that half the number of the children were underweight and more than two-thirds were stunted. Their dietary intakes were grossly inadequate in calories, protein, iron, calcium and thiamin. Almost half the number of the children could be classified as anaemic. The factors influencing the nutritional status of these Orang Asli differ depending on whether they are from the periurban or interior areas. Among periurban Orang Asli, some do not have access to nearby land for subsistence cultivation, even if they wish to supplement their diet with home grown plant food; their earnings are meagre on average and they can hardly afford to purchase a variety of nutritious food. The interior Orang Asli have access to land for subsistence cropping, but their traditional plant-fallow-plant cropping style tends to provide only a limited quantity and variety of food for the household. Also, the interior Orang Asli increasingly face depleting forest food re-

sources including fishes and wildlife, which means that they have to cover a wider territory and spend much more time foraging for forest food and other resources.

From the above examples, it is seen that non-RPS Orang Asli, like their RPS counterparts, possess moderate to high levels of underweight, acute and chronic malnutrition. However, since the RPS schemes are being implemented at a high cost (about seven million ringgit per settlement in the 1980s and probably more presently) and as the RPS plan is aimed at improving the health status of the settlers, one would expect the health of the settlers to be better than that of their non-RPS counterparts some 15 years after its implementation.

Resettlement and Nutritional Status in Some Developing Countries

Resettlement of peasants and indigenous groups accompanied by introduction of cash cropping has been carried out in various countries in South America, Africa and the Asia-Pacific region. The effects of resettlement on the health and nutritional status as reported by some major studies on this subject are discussed below.

In a study by Shack, Griveti and Dewey (1990a; 1990b), the nutritional status of three groups living in a rubber resettlement project in lowland Papua New Guinea was compared with that of their counterparts from their respective places of origin. These groups represented hunter-gatherers, sedentary agriculturalists, and hunter-gatherers with limited agriculture. The resettlement project was begun in the late 1970s and this report was undertaken in 1986. In terms of growth achievement of children and health status of mothers, the group which benefited most from resettlement was the agriculturists, who possess cultivation skills necessary for growing food and cash crops. Their children showed highest weight-for-age, height-for-age and hemoglobin status. In comparison, resettlement was least beneficial for the hunter-gatherers group who were unaccustomed to agriculture and did not possess cultivation experience. This study clearly shows that it is important to consider a group's skill in land use if cash crops are expected to provide income and food in a resettlement.

The investigations by Hernandez *et al.* (1974) and Dewey (1981) in Tabasco, Mexico rank as

landmark studies on the dietary consequences of transformation from subsistence to commercial agriculture. Before 1958, the affected area in Tabasco suffered from periodic extensive flooding resulting in destruction and fatalities. The Chontalpa Plan was implemented whereby about 6,000 families were relocated. Each family was allocated two hectares of land to farm as they wished, in addition to 13 hectares per family devoted to the collective production of cash crops and cattle. The traditional agriculture of the Chontalpa area used to be based on shifting cultivation of a wide variety of crops including maize, beans, tapioca, sweet potatoes, squash, rice, bananas and many types of fruits. With the Chontalpa Plan, cultivation of cash crops (coffee and cocoa) and export crops (sugar cane and bananas), and also rearing of cattle became the dominant forms of land use. The switch to cash cropping imposed a heavy demand on labour and time, and this invariably led to a decrease in the cultivation of subsistence crops for family consumption. The peasants became increasingly dependent on purchased foods. In this study area of low wages and high food prices, the poorest 30% of the population was found to benefit least, if at all, from the resettlement. The low nutritional status of their children remained poor, although the community in general had enjoyed an increase in household income from cash cropping. However, the marginal income increase for the lowest income group was negated by the rapid increase in food prices.

A different situation where peasants were relocated out of their land for a private commercial agricultural scheme served as part of a study by Kennedy (1989) in the Nyanza Province in Kenya. The study focused on the nutritional impact of a shift from maize cultivation on a semi-subsistence basis to the commercial production of sugar cane. The sugar scheme affected a group of about 2,000 households who were relocated for the construction of a sugar factory. The relocated households were compensated for their land, and although nearly three-quarters of them purchased land with the money they received, the average size of land owned decreased from 5.1 hectares before relocation to 1.2 hectares. They could not afford to purchase more land as the price of land had inflated during the transition period. Due to the reduction in their land hold-

ings, more than half of their income depended on non-farm employment. This study found that 35% of the relocated households were consuming grossly inadequate levels of calories (at and below 80% of caloric requirements), and 91% of them claimed that their lives had been worse after the development of the sugar scheme.

In summary, the above studies indicate that resettlement of indigenous groups and peasant farmers, and drawing them into the market economy through cash cropping, does not intrinsically bring about an improvement in nutritional status of the settlers. This is especially true if the change from subsistence cropping to cash cropping results in only a marginal increase in income, while prices of food and other goods increase rapidly as a consequence of the change in agricultural production.

DISCUSSION AND CONCLUSION

Prior to regroupment, Orang Asli villages were scattered and they had access to land close to their villages for the growing of hill rice and other food crops. The swidden type of subsistence agriculture once practised by Orang Asli allows areas to be left fallow long enough for the native vegetation to return. In this way, there is less chance of a permanent loss of the wild food plants as compared with intensive cash cropping. Following regroupment, the Orang Asli settlers have been expected to switch to cash cropping and reduce subsistence cropping. In reality, subsistence planting and foraging for forest resources persisted after regroupment.

However, compared to the situation prior to regroupment, the settlers now have to compete with a relatively large number of fellow settlers for limited and depleting resources in the hinterland of the RPS location. For example, in RPS Betau which brought together 17 villages with a population of 244 Semai families or 914 people, over-crowding is one of the major complaints (Sua 1992). The population size of Betau is unusually large for Orang Asli villages. Non-RPS Orang Asli villages in the interior usually have about 100 or less people in a village, while those in periurban areas tend to carry a larger population, but even then, they seldom have more than 200 to 250 people in a village (Khor 1985). Friction arises due to the competition for scarce resources, and due to social problems because

of the large concentration of people in one area (Zahid Emby 1990). Adjustment problems faced by RPS Orang Asli pose as one of the most intractable challenges to the success of the regroupment plan.

A congested settlement aggravated by unsatisfactory sanitary and water supply services can easily give rise to an outbreak and spread of infectious diseases. In several studies undertaken by the International Food Research Policy Institute (IFRPI) on the health and nutritional effects of cash cropping, one common finding is that poor sanitary and community health services and conditions in the study areas contribute to poor nutritional status (Kennedy 1989; Bouis and Haddad 1990). In an interview with 83 settlers in RPS Betau, more than half identified the lack of environmental cleanliness, including the indiscriminate disposal of garbage, and inadequate water supply as major community health problems (Sua 1992). Improvement of community health services should be undertaken in tandem with agricultural modernisation.

The socio-economic status of the RPS settlers in general remain low, although several of the settlements have been in existence for more than a decade. The objective of the RPS plan to improve the socio-economic livelihood of Orang Asli through greater involvement in commercial agricultural practices is yet to be attained, as exemplified by RPS Betau and RPS Banun. In the former scheme, only a few heads of households derive their primary source of income from cash crops. In the studies of Massitah Sin (1992) and Sua (1992), the majority of the male household heads reported their primary occupation as labourers (with JHEOA and FELCRA). They also tend small plots of hill padi, maize and fruit trees for family consumption. A significant number of them are also engaged in selling forest products (e.g. rattan, bamboo, fruits) to supplement their income. However, their average monthly income is low, at less than RM250. In RPS Banun, only a few families have remained with cash crops solely (rubber and fruit trees). The rest of the settlers have reverted to their traditional life of subsistence cropping, and selling rattan and bamboo, some of whom manage to earn RM400 monthly (Itam Wali 1993).

When income is meagre and access to forest resources becomes limited, nutritional status es-

pecially that of the children and women can be expected to be negatively affected. Although their traditional diet of tapioca, wildlife and forest greens could be described as balanced, this does not necessarily mean that Orang Asli possess sound nutritional knowledge. Their traditional dietary practices could be described as a product of history and environment. When their traditional sources of food are reduced or lost, as is happening not only in RPS areas but elsewhere, Orang Asli should be provided with nutritional information and advice, especially pertaining to commercial and processed food which they are increasingly dependent upon. RPS Fort Kemar exemplifies this situation where a high reliance on processed food contributed to the detriment of the nutritional status of the RPS children (Khoo 1977).

Arising from a low income and with few supplements from home grown food or food from the forest, the diet of the Orang Asli is reduced in dietary diversity. Dietary diversity is important as it is closely associated with dietary quality, that is, eating a variety of food enhances the chances of consuming many of the nutrients required. A decline in food diversity and dietary quality is known to correlate with nutrient deficiency and poor nutritional status (Caliendo and Sanjur 1978; Moreno-Black 1983). The marked prevalence of current and chronic malnutrition found among the RPS children could be attributed to a lack of dietary diversity; that is they are subsisting on a few food items only, especially on tapioca roots and leaves.

The linkage between agricultural production, income, consumption and nutritional status is complex, involving many coincident and influencing factors related to food policy, market forces, socio-economic conditions and cultural practices (Paine 1990; Martorell 1989). It is argued that nutritional status will be affected in a significant way only to the extent that consumption is affected, either by an increase of food produced for consumption, or by additional food purchased with income that is derived from the sale of the increase in food or cash crop produced (Pinstrup-Andersen 1984). This suggests that changes in cropping system that do not enable farmers to increase the quantity and quality of food available for family consumption

will have little permanent impact on nutritional well-being.

The development slogan, "If you give a man a loaf of bread, you feed him a day; if you give him a hoe, you feed him a lifetime" reflects the philosophy that agricultural development - "the giving of the hoe" - is considered a more effective way of alleviating malnutrition than nutrition interventions - "the giving of the loaf of bread" - since the latter can only provide a temporary solution (Luven 1982). Nonetheless, agricultural development projects will fail to meet their objectives if the organising agency hands out the wrong type of hoes, or hand out hoes to the wrong people who are not motivated to hoe.

REFERENCES

- BOLTON, J. 1972. Food taboos among the Orang Asli in West aysia: a potential nutritional hazard. *Am. J. Clin. Nutr.* **25**:789-799.
- BOUIS, H.E. and L.J. HADDAD. 1990. Effects of agricultural commercialization on land tenure, household resource allocation, and nutrition in the Philippines. International Food Policy Research Institute Research Report No. 79. 72 p. Washington, D.C., IFPRI.
- BRAND, J.C., C. RAE, J. McDONNELL, A. LEE, V. CHERIKOFF and A.S. Truswell. 1983. The nutritional composition of Australian Aboriginal bushfoods. *Food Tech. Aust.* **35**:293-298.
- BREARLEY, A. 1970. Serum proteins, haematocrit, heights and weights of Aborigine subjects in West Malaysia. *Med J. Malaysia* **24**:183-186.
- CALIENDO, M.A. and D. SANJUR. 1978. The dietary status of preschool children: an ecological approach. *J. Nutr Edu.* **10**:69-72.
- CHEN, P.C.Y. 1979. Ecological changes and health in the Muda irrigation scheme. *Med.J. Malaysia* **33**(4):294-298.
- DEWEY, K.G. 1979. Agricultural development, diet and nutrition. *Ecol. Food Nutr.* **8**:265-273.
- DEWEY, K.G. 1981. Nutritional consequences of the transformation from subsistence to commercial agriculture in Tabasco, Mexico. *Human Ecol.* **9**(1):151-187.
- Federal Department of Town and Country Planning. 1979. Development Plan. Orang Asli Regroupment Scheme - Betau. 192p. Malaysia.

- FLEURET, A. 1979. The role of wild foliage plants in the diet. A case study from Lushoto, Tanzania. *Ecol. Food Nutr.* 8:87-93.
- FLEURET, P. and A. FLEURET. 1980. Nutrition, consumption and agricultural change. *Human Organisation* 39(3):250-260.
- HARPER, L.J. 1986. Food, nutrition and agriculture: a liaison for world development. *J. Am. Dietet. Assoc.* 86:345-351.
- HARRELL, M.W., C. PARILION and R.L. FRANKLIN. 1989. Nutritional classification study in Peru. Who and where are the poor? *Food Policy* 14:313-329.
- HERNANDEZ, M., C.P. HIDALGO, J.R. HERNANDEZ, H. MADRIGAL, and A. CHAVEZ. 1974. Effect of economic growth on nutrition in a tropical community. *Ecol. Food Nutr.* 3:283-291.
- IMMINK, M.D.C. and J.A. ALARCON. 1991. Household food security, nutrition and crop diversification among smallholder farmers in the highlands of Guatemala. *Ecol. Food Nutr.* 25:287-303.
- ISMAIL MOHD. NOOR, T.S. WONG and ZAWIAH HASHIM. 1988. Anthropometric and food intake studies among Semai children. *J. Malaysian Soc. Hlth.* 6(1):19-25.
- ITAM WALI NAWAN. 1993. Rancangan Pengumpulan Semula (RPS) Air Banun. Satu kajian kes tentang perubahan sosial. Dalam *Kolokium Sehari Warga Pribumi Menghadapi Cabaran Pembangunan*. Bangi, Universiti Kebangsaan Malaysia, September 1993.
- Jabatan Hal Ehwal Orang Asli (JHEOA). 1992a. Taklimat ringkas Rancangan Pengumpulan Semula Jabatan Ehwal Orang Asli, Malaysia untuk Timbalan Menteri, Pembangunan Luar Bandar di Pejabat JHEOA pada 28 Mei, 1992. 33 p. Kuala Lumpur, JHEOA, Malaysia.
- Jabatan Hal Ehwal Orang Asli (JHEOA). 1992b. Profail Rancangan Pengumpulan Semula (RPS) Kawasan Titiwangsa. 12p. Kuala Lumpur, JHEOA, Malaysia.
- KENNEDY, E. 1989. The effects of sugarcane production on food security, health, and nutrition in Kenya: a longitudinal analysis. International Food Policy Research Institute Research Report No. 78. 56p. Washington, D.C., IFPRI.
- KHOO, T.E. 1977. Some aspects of the nutritional status of the Temiar in Kemar. MPH Dissertation, University of Malaya, Kuala Lumpur.
- KHOR, G.L. 1985. A study of the nutritional status of the Semai. Ph.D. Dissertation, University of Malaya, Kuala Lumpur.
- KHOR, G.L. 1988. Malnutrition among Semai children. *Med. J. Malaysia* 43:318-326.
- LAPPE, F.M. and J. COLLINS. 1986. *World Hunger. Twelve myths*. New York: Grove Press Inc. 208 p.
- LUVEN, P. 1982. The nutritional consequences of agricultural and rural development projects. *Food and Nutr. Bulletin* 4(3):17-22.
- MARTORELL, R. 1989. Body size, adptation and function. *Human Organisation* 48(1):15-20.
- MASSITA MOHAMED SIN. 1992. Penilaian taraf pemakanan kanak-kanak Orang Asli di Rancangan Pengumpulan Semula (RPS) Betau, Pahang. B.S. (Human Development) Dissertation, Universiti Pertanian Malaysia, Serdang.
- MORENO-BLACK, G. 1983. Dietary status and dietary diversity of native highland Bolivian children. *Ecol. Food Nutr.* 13:149-157.
- O'DEA, K. 1991. Traditional diet and food preferences of Australian Aborigines hunter-gatherers. *Phil. Trans. R. Soc. Lond. B* 334:233-241.
- OSMAN ALI, ZARINA SHAMSUDDIN, and B.A.K. KHALID. 1991. Socio-economic factors, social behaviour and dietary patterns among Malaysian Aborigines and rural native Malays. *Medical J. Malaysia* 46(3):221-229.
- PAYNE, P.R. 1990. Measuring malnutrition. *Institute of Development Studies Bulletin* 21(3):14-30.
- PINSTRUP-ANDERSEN, P. 1984. Incorporationg nutritional goals into the design of international agricultural research - an overview. In *International Agricultural Research and Human Nutrition*, ed. P. Pinstруп-Andersen, A. Berg and M. Forman. p 3-25. Washington, D.C., International Food Policy Research Institute.
- ROBSON, R.K. 1973. The ecology of malnutrition in a rural community in Tanzania. *Ecol. Food Nutr.* 3:61-72.
- SHACK, K.W., L.E. GRIVETTI, and K.G. DEWEY. 1990a. Effects of resettlement on nutritional status of mothers and children in lowland Papua New Guinea. *Ecol. Food Nutr.* 24:37-54.
- SHACK, K.W., K.G. DEWEY, and L.E. GRIVETTI. 1990b. Effects of resettlement on the dietary intakes of

- mothers and children in lowland Papua New Guinea. *Ecol. Food Nutr.* **24**:55-70.
- SMITH, M.F. 1986. The impact of changing agricultural systems on the nutritional status of farm households in developing countries. *Food Nutr. Bulletin* **8**(3):25-29.
- SUA, G.K. 1992. Penggunaan perkhidmatan kesihatan di kalangan komuniti Orang Asli (Semai) di Rancangan Pengumpulan Semula Batau, Pahang Darul Makmur. B.S. (Human Development) Dissertation, Universiti Pertanian Malaysia, Serdang.
- TEOH, S.T. 1975. Recommended daily dietary intakes for Peninsular Malaysia. *Med J. Malaysia* **30**(1):38-42.
- TURSHEN, M. The impact of colonialism on health and health services in Tanzania. *Int. J. Hlth Services* **7**(1):7-35.
- VON BRAUN, J., D. HOTCHKISS and M. IMMINK. 1989. Nontraditional export crops in Guatemala: effects on production, income and nutrition. International Food Policy Research Institute Research Report No 73. 100p. Washington, D.C., IFPRI.
- VON BRAUN, J., D. PUETZ and P. WEBB. 1989. Irrigation technology and commercialization of rice in the Gambia: effects on income and nutrition. International Food Research Policy Institute Research Report No. 75. 116p. Washington, D.C., IFPRI.
- ZAHID EMBY. 1990. The Orang Asli Regrouping Scheme - converting swiddeners to commercial farmers. In *Margins and Minorities - The Peripheral Areas and Peoples of Malaysia*, ed. V.T. King and M.J.G. Parnwell, p. 94-109. Hull: Hull University Press.

(Received 17 August 1993)

Correlates of Human Development amongst Adolescents in Malaysian National Religious Secondary Schools

OTHMAN MOHAMED, ABDUL RAHMAN MD. AROFF,
ABDUL AZIZ ZAKARIA and NORAN FAUZIAH YAACOB

Department of Education,
Faculty of Educational Studies,
University Pertanian Malaysia
43400 UPM Serdang, Selangor Darul Ehsan, Malaysia

Keywords: Correlates of human development, adolescents, Malaysian National Religious Secondary Schools

ABSTRAK

Kajian ini meninjau korelasi faktor-faktor pembangunan manusia di kalangan pelajar Sekolah Menengah Kebangsaan Agama di Malaysia selaras dengan pendekatan identiti epigenesis Erikson (1968) dan vektor perkembangan remaja Chickering (1972). Kajian ini merangkumi model analisis regresi dengan pembangunan manusia sebagai pembolehubah bersandar dan lapan pembolehubah penentu, iaitu faktor keluarga, persekitaran sekolah, tujuan hidup, sendiri, masyarakat, akademik, kokurikulum dan persekitaran asrama. Nilai regresi adalah signifikan, iaitu $F(8, 1099) = 18.475$, $p < .05$, dan $R^2 = .119$ menunjukkan bahawa kelapan-lapan faktor penentu dapat menerangkan pengaruh sebanyak 11.9% terhadap pembangunan manusia. Sumbangan ini adalah sederhana. Amnya, responden sedar tentang matlamat mereka berhubung dengan apa yang hendak mereka capai. Kajian ini juga mendapati bahawa pelajar Sekolah Menengah Kebangsaan Agama telah maju ke arah autonomi sendiri berhubung dengan kesedaran mereka terhadap pembangunan manusia.

ABSTRACT

The study investigated the correlates of human development among National Religious Secondary School students in Malaysia, consistent with the Erikson (1968) epigenesis of identity approach and the Chickering (1972) vectors of adolescent development. The research design incorporated a regression analysis model with human development as the dependent variable with eight predictors, i.e. the family, the school environment, sense of purpose, self, society, academic, co-curriculum, and the hostel environment. The regression value was significant, $F(8, 1099) = 18.475$, $p < .05$, with R^2 of .119 indicating that the eight predictors explained an influence of 11.9% towards human development. The contribution was moderate. Generally, the respondents were aware of their sense of purpose with regards to what they intended to achieve. Moreover, the National Religious Secondary School students have moved towards self autonomy in relation to an awareness of human development.

INTRODUCTION

Adolescent development has been defined in varied formulations, differing in respect to emphasis, according to various theoretical approaches and inclinations. The basis of these formulations focuses on different facets such as biological, cognitive, psychological, moral, or social development. Nevertheless, Travers (1982) indicates that development is not a chronological sequence of ages and stages, rather an integrated series of meaningful events.

Theorists such as Piaget (1962) forwards the emphasis on cognitive development. Kohlberg (1971) emphasizes the moral development of the individual. Erikson (1968) derives the epigenesis

of identity approach in adolescent development consistent with Freud's (1949) development of the id, ego, and superego in psychoanalytic theory. In the Ericksonian approach, the life cycle is categorized under six stages, beginning with infancy, early childhood, childhood, school age, adolescence, and beyond identity.

Erikson (1968) indicates that the school age is guided with the wisdom to learn readily, quickly and avidly. It is a period of sharing obligations, sense of discipline and performance. Also, it is seen as a period of expansion of the imagination and an eagerness in constructive endeavours. It is a stage preceded by an affirmation of goals, verbalization and initiative during childhood.

Subsequently, the age of adolescence is a transition towards adulthood. Puberty and maturity emphasize a catalytic attempt toward establishing an identity. Among adolescents, there arises a preoccupation with a need for comparison between what is personally felt with the idea of how other people perceive them. There is trust and yet mistrust; an encounter not without experimentation in social relationships. In fact, this is the infamous Eriksonian stage of identity crisis in the epigenesis of identity development (Erikson 1968).

Chickering (1972) suggests seven vectors related with adolescent development. Competence, emotions, autonomy, interpersonal relationships, purpose, identity, and integrity have their own direction, either in a spiral or step by step developmental process. Although the conceptual formulations are basically for young adults, it is however relevant in explaining growth and human development.

The thesis here is that of the universality of the concepts in synthesizing and explaining adolescent development in a changing and increasingly complex society. Malaysia is undergoing a societal transformation at a pace without parallel over the past few decades. Education has been a prime ingredient in the rapid societal and economic development of the nation.

The National Religious Secondary Schools together form one system under the main umbrella of the Malaysian secondary school system. The Malaysian secondary school system is guided by the National Philosophy of Education that places an emphasis on human development as an educational objective in a complex multi cultural environment. In this regard, the Malaysian Religious Secondary Schools are playing a role in the education of a segment of Muslim students towards this objective.

Since 1977 38 religious secondary schools have been established throughout Malaysia. Originally, the religious schools placed priority on the learning of the Arabic language and Islamic education. At present, equal emphasis is given to academic subjects other than the Arabic language and specialized courses on religion (Noran Fauziah Yaacob *ed al.* 1993)

PURPOSE OF THE STUDY

The study was undertaken to investigate the correlates of human development among adolescents in Malaysian Religious Secondary Schools. In the light of the emphasis in the Malaysian national philosophy on education in human development, the study attempted to determine the factors that influence human development among students at the Malaysian Religious Secondary Schools.

METHODOLOGY

A correlational study using a regression model was found suitable as the research design for this study. Also, an initial factor analysis was conducted to determine the relevant factors consistent with the purpose of the study.

Instrumentation

The construction of the survey instruments focuses on three areas. The first part deals with the demographic background of the respondents. The second part consists of eight items on the concept of human development. The third part of the instrument consists of 39 items to measure the various factors related to human development.

Subsequent factor analysis revealed eight factors related to human development. The eight factors were the family, the school environment, sense of purpose, self, society, academic, co-curriculum, and the hostel environment.

The Likert scale on the basis of "strongly agree," "agree," "quite agree," and "disagree" was used in soliciting responses for each item on the concept of human development, and the factors related to human development. Subsequently, based on the data obtained from a pilot study, the reliability of the instruments was at an acceptable Chronbach α of .60.

Sampling Procedures

The sample size for this study was determined by the effect size required by the test statistic under the regression model. Cohen (1992) and Barcikowski (1988) have determined that a regression effect size of .15, with power set at .8 and $\alpha = .05$ based on eight predictors needs a minimum sample size of 160 subjects. In this study, the sam-

TABLE 1
Correlations between the predictors with human development

	1	2	3	4	5	6	7	8
Human Development	.135**	.184**	.172**	.309**	.087*	.153**	.081*	.005
1 = Family			5 = Society					
2 = School Environment			6 = Academic					
3 = Sense of Purpose			7 = Co-curriculum					
4 = Self			8 = Hostel Environment					

(n = 1214)

Note: ** Sig. at .001 level; * Sig. at .01 level

ple size of 1,214 Form 4 students from 21 National Religious Secondary Schools throughout Malaysia exceeded the requirement, thus reducing Type II error.

Data Procurement and Analysis

The data were collated from 21 schools throughout the country during October 1992. The subjects answered the questionnaires in groups within a classroom environment. No time limit was set in answering the questionnaires. However, subjects took an average of 20 minutes to complete the questionnaires.

The data were analysed using the SPSS/PC+ (Norusis 1988). A frequency analysis was computed for all the dependent and independent variables. A regression model was run to explain human development as the criterion vari-

able with eight predictors, i.e. the family, the school environment, sense of purpose, self, society, academic, co-curriculum, and the hostel environment.

In this regression model, the sequence of the variable entry was based on the strength of the correlation of each predictor variable with the concept of human development as the dependent variable (Table 1).

RESULTS

General Concept of Human Development

The general concept of human development as perceived by the National Religious Secondary School students is congruent with the National Philosophy of Education (Table 2), i.e. the respondents perceive human development as a balanced growth from all possible aspects. Indeed,

TABLE 2
Means and standard deviation of students' responses on human development

Item	agree	disagree	M	SD
Human development is identified with the National Philosophy of Education.	1019 (85%)	181 (15%)	3.56	1.32
Human development is synonymous with religiosity.	903 (76%)	286 (24%)	3.60	1.25
Physical handicap is an obstacle to human development.	83 (7%)	1124 (93%)	1.36	.569
Human development involves a balanced personality development.	1126 (94%)	78 (6%)	3.64	.569
A sound faith in religion helps one's development.	1179 (98%)	25 (2%)	3.80	.408
Human development involves a balanced development from all aspects of growth.	1196 (99%)	11 (1%)	3.92	.277
Human development means achieving competency.	1071 (89%)	132 (11%)	3.32	.690
Human development gives more emphasis on individual well-being than national well-being.	350 (29%)	851 (71%)	2.24	.779

(n = 1214)

TABLE 3
Influence of predictors towards human development

Source	DF	SS	MS	R ²	F	Sig F
Regression	8	732.851	91.606	.119	18.475	.000
Residual	1099	5449.000	4.958			
Total	1107	6281.851	95.864			

(n = 1214)

the National Philosophy of Education has a specific objective to develop balanced and harmonious individuals in respect to the cognitive, social, physical and religious perspectives.

Influence of the Factors on Human Development

Using the regression model, the eight factors as predictors were thus placed in the regression equation. The regression coefficient for the eight factors with the concept of human development was significant, $F(8, 1099) = 18.475$, $p < .05$ (Table 3). The R^2 of .119 indicates that the eight factors explained an influence of 11.9% toward human development.

The results indicate that four factors stand out amongst the eight independent variables. The factors, in the sequence of importance are self, the family, sense of purpose, and the hostel environment. This influence was reflected from the R^2 value of the stepwise regression equation (Table 4).

TABLE 4
 R^2 contribution of the predictors, Self, the Family, Sense of Purpose, and Hostel Environment towards the stepwise regression equation

Predictors	R	R ²	Sig F
Self	.310	.096	.000
Self & the Family	.325	.105	.000
Self, the Family and Sense of Purpose	.332	.110	.000
Self, the Family, Sense of Purpose, and Hostel Environment	.337	.113	.000

(n = 1214)

Specifically, the importance of each of the predictors could be determined from the beta values as shown in Table 5.

TABLE 5
Contribution of the Beta weights towards the regression equation

Variable	B	Beta	Sig T
Hostel Environment	-.023	-.058	.042
Society	.027	.017	.557
Co-curriculum	-.049	-.034	.273
The Family	.129	.089	.002
Academic	.092	.053	.085
Sense of Purpose	.260	.068	.028
Self	.248	.253	.000
School Environment	.028	.044	.208
Constant	14.277		.000

Also, the combined four influential predictors of self, the family, sense of purpose and the hostel environment contribute 11.3% of the regression variance as indicated by the result of the regression equation, $F(4, 1103) = 35.270$, $p < .05$. Although the influence of the four factors was significant, it was, however, moderate (Table 6). The linear model univariate regression analysis for the four predictors is shown in the following equation:

$$y_1 = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + e_1$$

In this equation, y is the scores for the dependent variable human development, β is the regression coefficients and x is the scores for the

TABLE 6
The contribution of the predictors, Self, the Family, Sense of Purpose and
Hostel Environment towards human development

Source	DF	SS	MS	R ²	F	Sig F
Regression	4	701.031	175.258	.113	35.270	.000
Residual	1103	5480.821	4.969			
Total	1107	6181.852	232.310			

(n = 1214)

subjects on the predictor variables and e is errors of the regression.

DISCUSSION

Self as Factor of Human Development

The independent variable, Self, as a factor is the most influential factor contributing as much as 9.6% of the variance explained. This result was consistent with the perception of 75% of the students who agreed on similar Self factor items. Such a perception indicates that among the students, there exists an awareness that human development should begin from within one's own self. This perception could also be reinforced from statements of students that the main elements in human development were (1) self discipline; (2) believe in one's own self; (3) confidence in oneself. Therefore, among the Religious Secondary School students, there was an awareness with regard to the importance of the concept of autonomy to initiate a movement towards self achievement.

Family as Factor of Human Development

As many as 65% of the students in the study agreed with the statement that Family, as a factor, is important in human development. This is a moderate percentage consistent with the lower beta weightage of .089, indicating that there was some need for familial support. However, students in the study may not be totally dependent on the family for their personal development. Since the majority of these respondents were residential school students, peer interaction in their school hostels might have lessened parental influence (Noran Fauziah Yaacob *et al.* 1993). Nevertheless, the students' perception that Family is an

important human development factor is an acceptable phenomenon.

This autonomous function seems consistent with Chickering's (1972) percept of emotional and instructional independence. Adolescents are free to carry out independent activities, to be self sufficient and have the ability to realize the shifting relationships with parents and authority.

Sense of Purpose as Factor of Human Development

Consequently, Sense of Purpose, as a factor contributed only 0.5% toward human development. As many as 88% of the students agreed with the positive statement regarding the schools' expectations of students. There exists a reciprocal action. The expectation leads to an effect on, and awareness of the the students' roles towards human development. There exists a realization that this sense of purpose implicates a formulation of plans for action and a setting of principles (Chickering 1972). It is consistent with the earlier 9.6% influencing variance harnessed by the Self factor in the growth of the human development of the National Religious Secondary School students.

The Hostel Environment as Factor of Human Development

Life in the hostel has taken over the interactive atmosphere within the family. Even though the hostel environment as a factor is significant, yet it gives an inverse influence towards the human development of the students, reflected by the negative regression beta value of $-.058$. Furthermore, the small contribution of 0.3% of the variance reinforced the findings of this study. In the study, only 2/3 of the students agreed that the facilities

at the hostel motivate human development. In conjunction, some 28% of the students indicated that the regulations at the hostel were restrictive. During this stage of adolescent development, the need for independence and leisure is necessary for a balanced self development.

The development of emotional independence begins with the disengagement from parents (Chickering 1972). Clearly, there is an early realization from the respondents along this vector. However, this study found that the stay at the hostel had not contributed much to the development of an autonomous lifestyle devoid of rigid and structured restrictions and regulations. Also, it might be possible that the lack of facilities at the National Religious Secondary School hostels contributed to the hostel environment being a weak factor influencing the human development of the students.

Other Factors Influencing Human Development.

The contributions of four other factors, i.e. the general school environment, academic, social and co-curriculum towards the growth of human development of the National Religious Secondary School students were minimal. The collated percentage for these factors, after removing the effect of the other four factors, was only 0.6%.

Although their contribution was low, the general school environment, academic, social and co-curriculum factors need to be given some attention. The National Religious Secondary School students perceived that human development could not be integrated through their academic activities. This is evident by the low beta weight of only .053 attributed to the academic factor towards the regression equation. Also, the social factor, which could be perceived as an equilibrium element in the process of human development, was lacking among the respondents. Evidently, these findings were further supported by the low contribution of the general school environment and co-curriculum activities towards human development.

The school climate or environment is important in the growth and development of adolescents in a boarding school. It is generally influenced by the hidden curriculum, which involves the interactional relationship between students and students, between teachers and teachers, and be-

tween teachers and students. However, the research findings indicated that only 40% of the respondents emphasized the importance of the informal school environment. Also, only 38% of the respondents indicated that co-curriculum activities contributed more than the academic factor (which itself was not considered as contributory) towards human development. This phenomenon is in contradiction of the vector, the freeing of interpersonal relationships (Chickering 1972), where social interaction, tolerance of idiosyncracies, and shifting intimacies are developed as part of the process of growth in human development.

CONCLUSION

Generally, the National Religious Secondary School students are aware of their sense of purpose and what they intend to achieve. They have moved towards self autonomy in relation to an awareness of human development. The findings also show that they are still in need of some familial support. However, the self autonomous climate is still wrought with restrictions as a result of the non-formal school climate which is not conducive to the students' human development. The importance of the hidden curriculum is still not realized by the students when taken in conjunction with the lack of awareness amongst students that societal interaction is also important in human development.

REFERENCES

- BARCIKOWSKI, R. S. (Ed.). 1988. *Collected lectures on regression analysis in education*. Mimeograph, College of Education, Ohio University, Athens, Ohio.
- CHICKERING, A.W. 1972. *Education and Identity*. San Francisco: Jossey - Bass Publishers.
- COHEN, J. 1992. A power primer. *Psychological Bulletin*. 112, (1), 153-159.
- ERIKSON, E. 1968. *Identity: Youth and Crisis*. New York: W.W. Norton.
- FREUD, S. 1949. *An Outline of Psychoanalysis*. New York: W.W. Norton.
- KOHLBERG, L. 1971. Stages of moral development as a basis for moral education. In *Moral Education: Interdisciplinary Approaches*, eds. C. M.Beck,

- B.S. Crittenden and E.V. Sullivan. New York: Newman Press.
- NORAN FAUZIAH YAACOB, ABDUL RAHMAN MD. AROFF, OTHMAN MOHAMED, ABDUL AZIZ ZAKARIA. 1993. Family dynamics and adolescent development: Perception of Malaysian religious school students. Paper presented at *Seventh Biennial Conference Asian Regional Association for Home Economics*, 19-23 July, 1993, Kuala Lumpur.
- NORUSIS, M. J. 1988. *SPSS/PC+ Advanced Statistics Guide*. Michigan: SPSS Inc.
- PIAGET, J. 1962. *Play, Dreams and Imitation in Childhood*. New York: W.W. Norton.
- TRAVERS, J. F. 1982. *The Growing Child*. Glenview: Scott, Foresman and Co.

(Received 3 December 1993)

Patterns of Counselling-related Problems in a Malaysian Corporate Setting

OTHMAN MOHAMED and MUHAINI MUSA¹

Department of Education
Faculty of Educational Studies
Universiti Pertanian Malaysia
43400 UPM Serdang, Selangor Darul Ehsan, Malaysia.

¹Telecoms Malaysia Bhd.
Wisma Telekom,
Jalan Pantai Baru, 59000 Kuala Lumpur, Malaysia

Keywords: Counselling-related problems, corporate setting, Malaysia

ABSTRAK

Beberapa kategori masalah yang berkaitan dengan kaunseling telah dikenal pasti dalam sebuah badan korporat. Selanjutnya, satu analisis perbandingan telah dijalankan bagi membeza masalah mengikut umur, jantina dan jenis pekerjaan. Saiz sampel dalam kajian ini ialah $n = 288$ berasaskan kepada kuasa $.8$ dan $\alpha = .05$, ia-ini penentuan bagi mengurangkan ralat jenis II. Dapatan daripada kajian ini menunjukkan masalah yang berkaitan dengan persaraan adalah paling penting (24.5%). Ini diikuti dengan masalah kerjaya (16.1%); masalah peribadi (13%); dan akhirnya masalah keluarga dan perkahwinan (11.4%). Dapatan ini juga menunjukkan bahawa masalah persaraan mempunyai perbezaan yang signifikan mengikut dua kumpulan umur. Perbandingan antara jantina menunjukkan perbezaan yang signifikan hanya tentang masalah peribadi. Tidak terdapat perbezaan yang signifikan tentang semua kategori masalah antara kumpulan eksekutif dengan bukan eksekutif.

ABSTRACT

Categories of counselling related problems in a corporation were identified. Subsequently, a comparative analysis was initiated differentiating the problems according to age, gender and job position. The sample size in the study $n = 288$ was determined with a power set at $.8$ and $\alpha = .05$, thus ensuring a reduction of Type II Error. Through frequency analysis, the result pattern showed that problems related with retirement was highest (24.5%); career problems (16.1%); personal problems (13%); family and marital problems (11.4%). Also, the results indicated that retirement problems showed a significant difference among age groups. The comparison between gender indicated a significant difference only on personal problems. There was no significant difference in all categories of problems between the executives and the non-executives.

INTRODUCTION

Generally, there are two categories of counselling services in the corporate environment. The first category focuses on development and career planning activities such as evaluation, training and planning, and counselling. In this respect, employees are given assistance in appropriate decision making toward meeting their career development needs within the corporation. The second category focuses on the physical and mental health dimension, involving all factors, which has an interactive relationship with the employees' quality of life in the corporate environment.

In this regard, management policies that incorporate contemporary management theories not only increase productivity; they also help in-

crease wellness of the employees (Othman Mohamed 1993). One of the welfare services which is closest to counselling in the corporate sector is the Employee Assistance Program. Lewis and Lewis (1986) explained that the fundamental objective in the employee assistance program is catering for the needs of employees who require professional help. The conveyance of such help to employees who have personal problems is important. Without such help the possibility of absenteeism, work related accidents, job dissatisfaction, and conflict among employees may occur (Lewis and Lewis 1986). Unlike the United States of America, such programs have not been widely implemented in Malaysia (Othman Mohamed 1993).

Counselling Services in the Corporate Sector in Malaysia

There have been several early studies on the need for counselling services in the corporate sector in Malaysia. A study conducted by the National Institute of Public Administration Malaysia examined training needs and designed a course in guidance and counselling for the Institute (INTAN 1990). Subjects for the study comprised 129 supervisory officers and 135 supervisees. This study was representative and incorporated all divisions of the public sector. However, the study had several limitations because the reliability of the questionnaire instruments administered to the subjects were not reported. Moreover, the sampling criteria were not explicitly reported, thus rendering validity of the results obtained from the study open to question.

In another setting, Engliman Roslan (1991) conducted a study on the need for a counselling service at the Johor Port Authority. This research study determined the sample size $n = 288$ with a power level set at .8, thus reducing Type II Error. The research instrument was categorized into 3 sections, a) demographic; b) needs and perception on the counselling service; c) employee problems. The questionnaire pertaining to the needs and perception of employees toward counselling contained 30 items with a reported Chronbach Alpha reliability of .82. The reliability on the questionnaire pertaining to employee problems had a Chronbach Alpha reliability of .84.

The problems identified among the employees at the Johor Port Authority were personnel services (40%); physical problems (30%); finance (23.6%); attitude (22.6%); facilities (20%); relationships (18%); self-concept (13.3%). Also, the results of the study indicated that 76.8% of the employees were agreeable to the establishment of a counselling service at the Johor Port Authority. The non-executive employees (72.3%) favoured the need for a counselling service compared with only 27.8% among the executives. It was found that more male employees required counselling (69.53%) than female employees (30.5%).

This study also made a comparative analysis of the variables according to gender, employees' job status, and work experience. The

results of the study indicated no significant difference between the executives and non-executives on the various problems. There was, however, a significant difference on matters related to finance and relationships between the male and female employees. The mean score on financial problems among males was 15.41, and the mean score for the female employees was 13.86, with $t(286) 3.26, p < .05$.

The studies indicated that a counselling service was found necessary in the organizations concerned. The results of the study conducted by INTAN indicated 82.8% of the supervisory staff and 95.4% among the officers being supervised agreed to the establishment of a counselling service in the public sector. Also, among the employees in the Johor Port Authority, 76.8% agreed to the establishment of a counselling service in the organization.

Evidently from these studies, the categorization of employees' problems needs also to be identified in corporations. The limitations of previous studies, and scarcity of related studies in Malaysia have led to the conduct of this research on a major telecommunication corporation in Malaysia.

The objectives of the study were 1) to identify problems faced by the workers; 2) to compare categories of problems according to age, gender, and job position. Subsequently, the study sought to answer the following questions: (1) what are the frequency of counselling-related problems found in a corporate setting? (2) what are the categories of problems faced by employees according to age, gender and job position? It was hypothesized that there is no difference in the various categories of age, gender and job position with counselling problems in the corporate setting.

METHODOLOGY

The study incorporated a descriptive survey research method, limited to one large corporation that is involved in the telecommunication business in Malaysia. The sample size in the research study was determined by using the Power Statistical Analysis (Borenstein and Cohen 1988). With power set at .8 and $\alpha = .05$, the 288 subjects randomly chosen were sufficient to ensure a reduction of Type II Error. The subjects were participants of courses conducted at the corporation's training center in Kuala Lumpur. They were executives and non-executives who came from all parts of Malaysia.

The survey questionnaires were administered over a period of 3 weeks to the captive respondents in their lecture rooms at the training center in Kuala Lumpur.

A frequency analysis was carried out to explain the need for counselling services and related problems. The t-test was used to explain the differences between the means on the dependent variables such as age, gender, job position, marital status with personal problems.

Instruments

The survey questionnaire consisted of two parts. Part A consisted of 90 items constructed to evaluate types of problems faced by employees. The items required a response on a Likert scale between 1 to 5 with 1 being "strongly agree" and 5 "strongly disagree". The overall reliability of the Part A questionnaire instruments was high, Chronbach Alpha = .91. Part B consisted of the demographic questionnaire with related items identifying the need for counselling. In Part B, 10 items relating to the need for counselling also required a response on a Likert scale between 1 to 5.

RESULTS

Results of the study illustrated the counselling needs and patterns of counselling-related problems in a corporation. Table 1 shows the various categories of problems. Problems related to retirement were highest (24.5%); followed by career problems (16.1%); personal problems (13%); family problems (6%); marital problems (5.4%).

TABLE 1
Categories of problems
(with percentages and frequencies)

Problem category	Percentage	Frequency
Retirement	24.5	70
Career	16.1	46
Personal	13.0	37
Family	6.0	17
Marriage	5.4	15

n = 288

Table 2 reflects the frequencies related to career problems. The data indicated insufficient remuneration as a main problem category. Also, relationship problems between management and the staff were high on the problem frequency list. This is reflected by the high percentage of employees reporting that management was unconcerned with employees' affairs (29.8%) and employees having difficulty in discussing problems with their supervisors (21.2%).

TABLE 2
Categories of career problems
(with percentages and frequencies)

Problem category	Percentage	Frequency
Insufficient remuneration	41.0	118
Management unconcerned toward employees' affairs	29.8	85
Worksite relocation	25.0	72
Inclination to work with the public sector	23.2	66
Difficulty in discussing problems with supervisors	21.2	61
Restricted office procedure	19.4	55
Non-opportunity for expression	17.0	48
Few promotion opportunities	16.3	46
Non-assertive superior	16.3	46
Insufficient experience in administration	14.2	40
Dislike for the work/job	13.2	38
Incumbent position incompatible with interest	10.5	30

n = 288

Table 3 shows the frequencies related to personal problems. The percentage for smoking related problems was 13.9%. Drug abuse (7.6%), gambling (4.1%) and alcohol dependence (3.4%) were also identified among the personal problems reported by the employees. Also in the study, the number of employees reporting family problems (6.0%) and marriage problems (5.4%) was, however, relatively small. Subsequently, comparisons of personal problems related to career, marriage and family were analyzed according to age, gender and job position of the employees.

When comparing workers over the age of 34 with workers under the age of 34, a significant difference was found only on the retirement problem. The mean score for the higher age group (more than 34 years old) was 13.10, $n = 211$ and the mean score for the lower age group (less than 34) was 14.06, $n = 77$, $t(286) = 2.95$, $p < .05$.

TABLE 3
Categories of personal problems
(with percentages and frequencies)

Problem category	Percentage	Frequency
Smoking	13.9	40
Drug abuse	7.6	21
Gambling	4.1	11
Alcohol dependence	3.4	9

$n = 288$

The comparison between gender indicated a significant difference only on personal problems. The mean score for the male group was 109.56, $n = 222$, and the mean score for the female group was 115.88, $n = 66$, $t(286) = 4.65$, $p < .05$. There was no significant difference on any categories of problems between the executives and the non-executives.

The comparison on marital status between married and non-married personnel indicated a significant difference on personal and retirement problems. In regard to personal problems, the mean score of the non-married group was 108.87, $n = 97$, while the mean score for the married group was 112.00, $n = 189$, $t(286) = 2.53$, $p < .5$. Subsequently, the problems on retirement indicated the mean score for the non-married group was 12.97, $n = 97$ while the mean score for the married group was 13.58, $n = 189$, $t(286) = 1.98$, $p < .05$.

DISCUSSION

The study indicated no significant difference between executives and non-executives in respect to all categories of problems identified. Certainly, the occurrence of problems cuts across all employees, indicating the presence of problem similarities irrespective of job status in the corporate sector. Personal problems surfaced as being signifi-

cant between gender. Cigarette smoking was cited by 13.9% of the subjects as the most frequent personal problem. Drug abuse and alcohol dependence totalled 11% amongst the disclosures, and gambling 4.1%. In Malaysia, with the current emphasis on drug abuse prevention programs, incidences of dependence call for concern within the workplace. There is, therefore, a need for a concerted effort toward awareness of drug abuse prevention and counselling related programs.

Also, personal problems were evident between the two marital groups. The higher incidence of personal problems among the married group is disturbing since the categories of problems tended towards dependence on drugs, cigarettes and gambling. In this study, 41.0% of the subjects indicated insufficient remuneration as a problem. This relatively high incidence of financial insufficiency and the high dependence-related problems need to be addressed accordingly.

Problems related to retirement were also evident; there was a significant difference among the age categories. The findings suggest that the married group above the age of 34 years seems to be more concerned with their retirement programs. As employees gradually mature within the corporation, their concern about stability at both the workplace and upon retirement becomes a pertinent issue. Frequencies of career related problems indicated 29.8% of employees felt that the management was unconcerned with their affairs. The findings showed that 21.2% of the employees faced difficulties in discussing problems with their supervisors. These findings are consistent with the findings of Engliman Roslan (1991) where 18% of the employees of the Johor Port Authority reported problems on relationships and 22.6% as having attitude related problems. Although this moderate occurrence is not alarming, there is an implied need for an employee counselling and consultation service in the corporate workplace in the Malaysian setting. Nevertheless, the study indicated that 83.3% of the respondents agreed that a counselling service should be introduced in the corporation.

IMPLICATION OF THE RESEARCH

The findings of the study imply that the counselling profession must be sensitive to the need for a comprehensive counsellor education programme.

Also, the counsellor education programme in Malaysia must focus on counselling courses most suitable within the corporate culture in Malaysia. More courses inclined to preventive programmes and dealing with alcohol dependence, career development and retirement management need to be introduced in the counsellor education programme to meet this need.

The findings also indicate that, irrespective of organizational setting, patterns of counselling-related problems do occur in the workplace. A comprehensive counselling-related programme could be initiated in the work setting with a set goal of benefiting the employees' wellness and at the same time ensuring a caring corporate culture.

REFERENCES

- BORENSTEIN, M. and J. COHEN. 1988. *Statistical Power Analysis: A Computer Program*. New Jersey: Lawrence Erlbaum Associates, Inc.
- ENGLIMAN BIN ROSLAN. 1991. Kajian keperluan perkhidmatan kaunseling di Lembaga Pelabuhan Johor, Pasir Gudang, Johor. (Counselling services needs analysis at The Johor Port Authority, Pasir Gudang, Johor). Unpublished project paper in partial fulfillment of the degree Bachelor of Education (Guidance and Counselling), Universiti Pertanian Malaysia. Serdang: Fakulti Pengajian Pendidikan, Universiti Pertanian Malaysia.
- INSTITUT TADBIRAN AWAM NEGARA (INTAN) 1990. Kajian keperluan latihan perkhidmatan bimbingan dan kaunseling. (Training services needs analysis on guidance and counselling). Kuala Lumpur: Biro Penyelidikan dan Penerbitan, INTAN, Jabatan Perkhidmatan Awam.
- LEWIS, J. A. and M. D. LEWIS. 1986. *Counseling Programs for Employees in the Workplace*. Monterey: Brooks/Cole Publishing.
- LLOYD, A. P. 1987. Counselor Education in Malaysia. *Counselor Education and Supervision* 26(3):221-227.
- MUHAINI BTE MUSA. 1991. Kajian keperluan perkhidmatan kaunseling di Pusat Latihan Telekom, Kuala Lumpur. (Counselling services needs analysis at The Telecom Training Center, Kuala Lumpur). Unpublished project paper in partial fulfillment of the degree Bachelor of Education (Guidance and Counselling), Universiti Pertanian Malaysia. Serdang: Fakulti Pengajian Pendidikan, Universiti Pertanian Malaysia.
- OTHMAN MOHAMED. 1993. Identifying the need for counselling services in organization and industry in Malaysia. ERIC/CASS, Resources in Education, University of North Carolina, Greensboro, 28 p.

(Received 20 July 1993)

Author Index for Volume 2, 1994

- Abd Majid Mohd Isa 63-68
Abdul Aziz Zakaria 133-139
Abdul Rahman Md. Aroff 133-139
Ahmad Zubaidi Baharumshah 77-86
Annuar Md. Nassir 43-52
Azimi Hamzah 87-93
- Habibah Elias 115-121
- Jamali Ismail 11-20
- Khor Geok Lin 123-32
- Mazanah Muhamad 29-41
McCracken, J. David 95-100
Muhaini Musa 141-145
- Noran Fauziah Yaacob 133-139
- Othman Mohamed 133-139, 141-145
- Rahim M. Sail 29-41
Reybold, L. Earle 101-113
Rohani Abdullah 21-28
Roslan A. Ghaffar 53-61
Rosli Talif 69-76
Rozumah Baharudin 21-28
- Sabaruddin Ahmah Khair 1-10
Shamsher Mohamad 43-52
Siti Nor Yaacob 21-28
- Ting Su Hie 69-76
Turiman Suandi 87-93
- Wan Rafaei Abdul Rahman 115-121
- Zakaria Kasa 95-100
Zakariah Abdul Rashid 1-10
Zulkarnain Yusop 53-61

Subject Index for Volume 2, 1994

- Adult education
 - media technology 101-113
 - national development 101-113
- Betas
 - Kuala Lumpur Stock Exchange 43-52
- Community development
 - youth organizations 87-93
- Corporations
 - counselling-related problems 141-145
- English language
 - varieties 69-76
- English learning
 - Malay-medium pupils 11-20
- Foreign investment
 - manufacturing sector 53-61
- Gifted children
 - screening 63-68
- Input-output analysis 1-10
- Kuala Lumpur Stock Exchange
 - betas 43-52
- Malay gifted children
 - screening 63-68
- Malaysian English
 - standardization possibility 69-76
- Manufacturing sector
 - foreign investment 53-61
- Media technology
 - adult education 101-113
 - national development 101-113
- National development
 - adult education 101-113
 - media technology 101-113
- Nutrition
 - orang asli 123-32
- Orang asli
 - resettlement and nutrition 123-132
- Preschool children
 - mental performance 21-28
- Raven's SPM test 63-68
- Religious secondary school students
 - human development correlates 133-139
- Resettlement
 - orang asli 123-32
- Rice
 - government pricing policy 77-86
- Rubber smallholders
 - technology adoption 29-41
- Secondary school students
 - human development correlates 133-139
- Secondary schools
 - English learning 11-20
- Technology adoption
 - rubber smallholders 29-41
- Universiti Pertanian Malaysia
 - students' work attitude 95-100
- University students
 - achievement motivation training 115-121
 - work attitude 95-100
- Value-added projections 1-10
- Wheat imports 77-86
- Youth organizations
 - community development 87-93

Acknowledgement

The Editorial Board acknowledges the assistance of the following reviewers in the preparation of Volume Two of this journal

Dr. Abdul Aziz Abd. Rahman	Prof. Dr. Othman Rani Hassan
Prof. Madya Dr. Abdul Aziz Idris	Dr. Othman Yong
Dr. Abd. Razak Habib	Dr. Rahim Bakar
Prof. Annuar Ali	Prof. Dr. Rahim Sail
Prof. Graham Thurgood	Prof. D.H Ritchie
Dr. Jamali Ismail	Prof. Madya Dr. Saidin Hj. Teh
Dr. David Law	Prof. Madya Dr. G. Sivalingam
Dr. Maimunah Ismail	Dr. Tai Shzee Yew
Dr. Mansur Jusoh	Dr. Tee E Siong
Dr. Maznah Ismail	Dr. Tengku Aizan Tengku Abdul Hamid
Prof. Madya Mohamad Haji Yusuf	Dr. Wan Chik Ibrahim
Dr. Mohd. Ibrahim Nazri	Dr. Zaitun Hj. Sidin
Prof. Madya Dr. Nazarudin Hj. Mohd. Jali	Dr. Zahid Emby
Dr. Noran Fauziah Yaakub	Dr. Zakaria Kasa
Dr. Othman Mohamad	Dr. Zulkifli Abd. Manaf